



STIC Search Report

EIC 1700

STIC Database Tracking Number: 96820

TO: Margaret Einsmann
Location: CP3 9B28
Art Unit: 1751
June 20, 2003

Case Serial Number: 10/022069

From: John Calve
Location: EIC 1700
CP3/4-3D62
Phone: 703-308-4139

John.calve@uspto.gov

Search Notes

=> file reg

FILE 'REGISTRY' ENTERED AT 16:08:21 ON 20 JUN 2003
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 19 JUN 2003 HIGHEST RN 534550-98-6
DICTIONARY FILE UPDATES: 19 JUN 2003 HIGHEST RN 534550-98-6

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> d his

(FILE 'HOME' ENTERED AT 12:09:12 ON 20 JUN 2003)

FILE 'LREGISTRY' ENTERED AT 12:09:24 ON 20 JUN 2003

L1 STR

FILE 'REGISTRY' ENTERED AT 12:13:45 ON 20 JUN 2003

L2 50 S L1

FILE 'LREGISTRY' ENTERED AT 12:14:00 ON 20 JUN 2003

L3 STR L1
SAVE L1 EISMANDELETE/L
DEL SATRI/L
DEL SATRI1/L
DEL SATRIDELETE/L

FILE 'HCA' ENTERED AT 13:22:44 ON 20 JUN 2003

L4 E US20030019055/PN ← Applicants record.
1 S E3
SEL L4 RN

FILE 'REGISTRY' ENTERED AT 13:23:26 ON 20 JUN 2003

L5 10 S E1-E10 ← Applicants reg. numbers
L6 5 S L5 NOT 1-10/X
L7 7 S L5 NOT 1-10/F
L8 1 S L7 AND ?NAPHTHALENETRISULFONIC?/CNS
L9 5 S L7 AND ?NAPHTHALENE?/CNS

FILE 'LREGISTRY' ENTERED AT 13:26:17 ON 20 JUN 2003

FILE 'REGISTRY' ENTERED AT 13:29:29 ON 20 JUN 2003

L10 4 S L9 AND 4-10/S ← Margaret, these are the compds in
FILE 'LREGISTRY' ENTERED AT 13:29:43 ON 20 JUN 2003
L11 STR L1
claims 152-156

L12 FILE 'REGISTRY' ENTERED AT 13:37:39 ON 20 JUN 2003
50 S L11

L13 FILE 'LREGISTRY' ENTERED AT 13:38:27 ON 20 JUN 2003
STR L11
L14 STR L1
L15 STR L14
L16 STR L14

L17 FILE 'REGISTRY' ENTERED AT 13:54:47 ON 20 JUN 2003
50 S L13
L18 50 S L14
L19 50 S L15
L20 50 S L16
L21 21085 S L15 FULL
SAVE L21 EISMANN069/A.

L22 FILE 'LREGISTRY' ENTERED AT 13:58:47 ON 20 JUN 2003
STR L13

L23 FILE 'REGISTRY' ENTERED AT 14:03:48 ON 20 JUN 2003
0 S L22 SSS SAM SUB=L21
L24 STR L22
L25 50 S L24 SSS SAM SUB=L21

L26 FILE 'LREGISTRY' ENTERED AT 14:05:49 ON 20 JUN 2003
STR L24

L27 FILE 'REGISTRY' ENTERED AT 14:12:02 ON 20 JUN 2003
3 S L26 SSS SAM SUB=L21

FILE 'LREGISTRY' ENTERED AT 14:13:06 ON 20 JUN 2003

L28 FILE 'REGISTRY' ENTERED AT 14:15:02 ON 20 JUN 2003
47 S L26 SSS FULL SUB=L21
SAVE L28 EISMANN069A/A

L29 FILE 'HCA' ENTERED AT 14:15:33 ON 20 JUN 2003
24 S L28

L30 104 S L10 ← Component B (claims 152 -)
L31 4 S L29 AND L30

L32 4 S L31 AND P/DT

L33 1 S L32 AND 1907-1999/PY

L34 3 S L32 NOT L33

L35 4 S L32 OR L33 OR L34 ← These 4 records are printed first.

L36 FILE 'LREGISTRY' ENTERED AT 14:17:17 ON 20 JUN 2003
STR L15
L37 STR L36
L38 STR L37

L39 FILE 'REGISTRY' ENTERED AT 14:38:24 ON 20 JUN 2003
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L40 50 S L38 SSS SAM SUB=L21

L41 FILE 'LREGISTRY' ENTERED AT 14:49:22 ON 20 JUN 2003
STR L38

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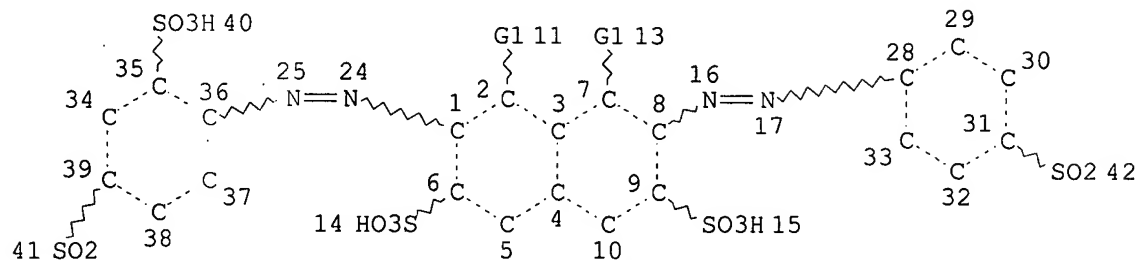
703-308-4139

NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L21 21085 SEA FILE=REGISTRY SSS FUL L15

L26 STR



compound(A)

VAR G1=OH/NH

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 33

STEREO ATTRIBUTES: NONE

L28 47 SEA FILE=REGISTRY SUB=L21 SSS FUL L26

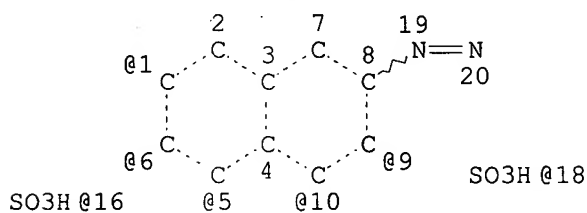
100.0% PROCESSED 5225 ITERATIONS

47 ANSWERS

SEARCH TIME: 00.00.02

=> d que stat L55

L15 STR



VPA 16-1/5/6 U

VPA 18-10/9 U

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

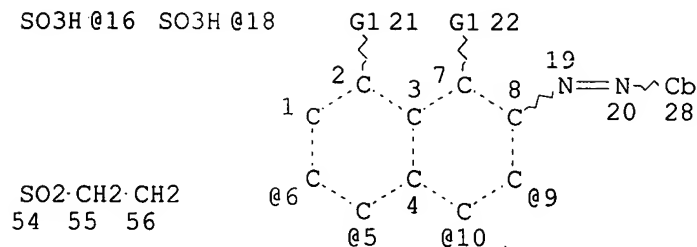
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L21 21085 SEA FILE=REGISTRY SSS FUL L15

L51 STR



VAR G1=OH/NH2
VPA 16-6/5 U
VPA 18-10/9 U
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 28
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE
L55 1779 SEA FILE=REGISTRY SUB=L21 SSS FUL L51

100.0% PROCESSED 6374 ITERATIONS 1779 ANSWERS
SEARCH TIME: 00.00.01

=> file hca
FILE 'HCA' ENTERED AT 16:08:59 ON 20 JUN 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 19 Jun 2003 VOL 138 ISS 26
FILE LAST UPDATED: 19 Jun 2003 (20030619/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d L35 1-4 ibib abs hitstr

L35 ANSWER 1 OF 4 HCA COPYRIGHT 2003 ACS
ACCESSION NUMBER: 134:297132 HCA

TITLE: Reactive dye compositions for dyeing nitrogen-containing fibers or textiles to a dark shade with good color fastness

INVENTOR(S): Washimi, Takeshi; Moriwaki, Toshikazu; Ikee, Masahide

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

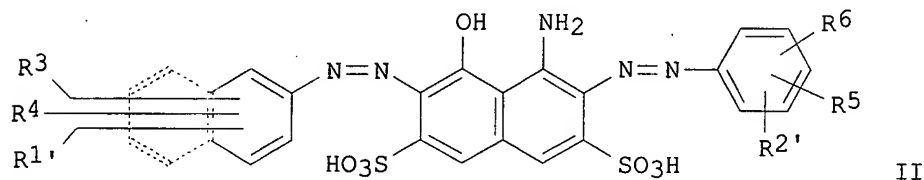
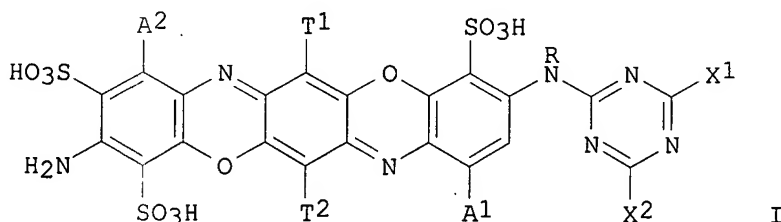
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001098183	A2	20010410	JP 1999-276368	19990929
PRIORITY APPLN. INFO.:			JP 1999-276368	19990929
OTHER SOURCE(S):			MARPAT 134:297132	

GI



AB The dyeing is done with a compn. contg. I or its salts (T1, T2 = H, Br, Cl, lower alkyl, alkoxy, aryloxy group; A1, A2 = H, Br, Cl, lower alkyl, alkoxy, carboxy group; R = H, lower alkyl group; X1 = Br, Cl, F, lower alkoxy, other functional groups) and II (R3-6 = H, lower alkyl, alkoxy, carboxy, sulfonyl groups; R1', R2' = fiber-reactive groups).

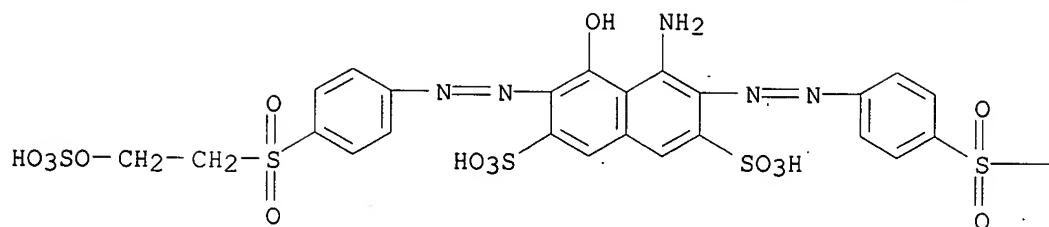
IT 55909-92-7 333725-64-7

RL: TEM (Technical or engineered material use); USES (Uses)
(reactive dye; reactive dye compns. for dyeing nitrogen-contg. fibers or textiles to a dark shade with good color fastness)

RN 55909-92-7 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3,6-bis[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A



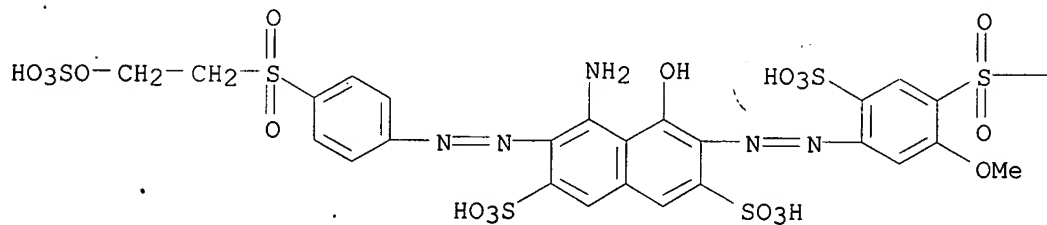
claim 155 (compd B)

PAGE 1-B

—CH₂—CH₂—OSO₃H

RN 333725-64-7 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-6-[[[5-methoxy-2-sulfo-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]]- (9CI) (CA INDEX NAME)

PAGE 1-A



compd A

PAGE 1-B

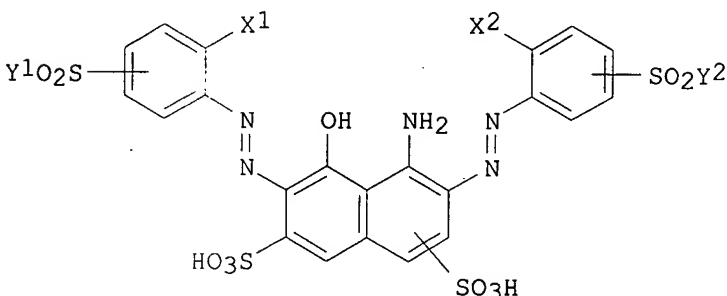
—CH₂—CH₂—OSO₃H

L35 ANSWER 2 OF 4 HCA COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 134:72868 HCA
 TITLE: Reactive dye mixtures
 INVENTOR(S): Zamponi, Andrea Maria
 PATENT ASSIGNEE(S): Basf Aktiengesellschaft, Germany
 SOURCE: PCT Int. Appl., 106 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001000736	A2	20010104	WO 2000-IB902	20000621
WO 2001000736	A3	20010503		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2000011920	A	20020319	BR 2000-11920	20000621
EP 1196502	A2	20020417	EP 2000-938985	20000621
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2003503575	T2	20030128	JP 2001-506738	20000621
US 2003019055	A1	20030130	US 2001-22069	20011217
PRIORITY APPLN. INFO.:				
			GB 1999-14837	A 19990624
			GB 1999-29150	A 19991209
			WO 2000-IB902	W 20000621

OTHER SOURCE(S): MARPAT 134:72868
GI



I

AB A reactive dye mixt. of at least 2 dyes comprises I (X1, X2 = H, SO3H; Y1, Y2 = vinyl or vinyl-generating group under alk. conditions) and at least one addnl. reactive dye selected from a monoazo pyrazole dye, a mono- or disazo dye, a monoazo pyridone dye, a monoazo naphthyl dye, a disazo aminonaphthyl dye, a formazan dye, an azo acetoacetanilide dye, an azobenzene-based disazo dye, a naphthalimide or azo naphthalenetriazole dye, a metal phthalocyanine dye, or a triphenyldioxazine dye. Incorporation of I improves the fastness of the dye mixt. Examples were given for dyeing of cotton.

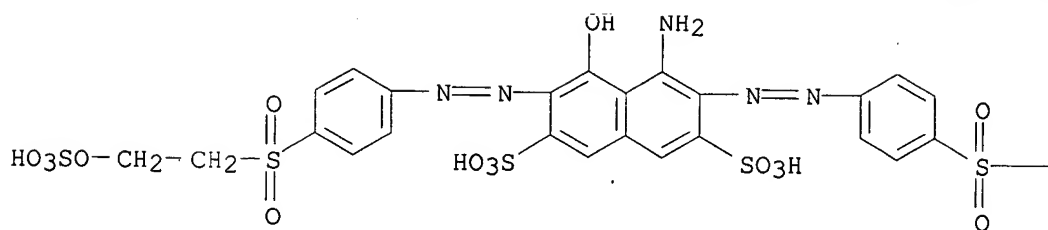
IT 55909-92-7 86293-57-4 133608-49-8
186609-01-8

RL: TEM (Technical or engineered material use); USES (Uses)
(dye; in reactive dye mixts. for application to cotton)

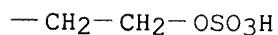
RN 55909-92-7 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3,6-bis[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

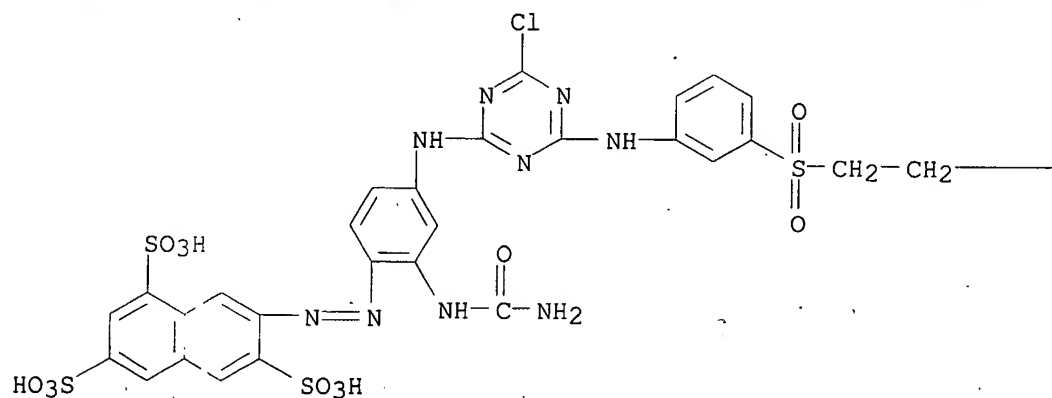


RN 86293-57-4 HCA

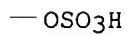
CN 1,3,6-Naphthalenetrisulfonic acid, 7-[[2-[(aminocarbonyl)amino]-4-[[4-chloro-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]- (9CI) (CA INDEX NAME)

compd (claim 153)

PAGE 1-A

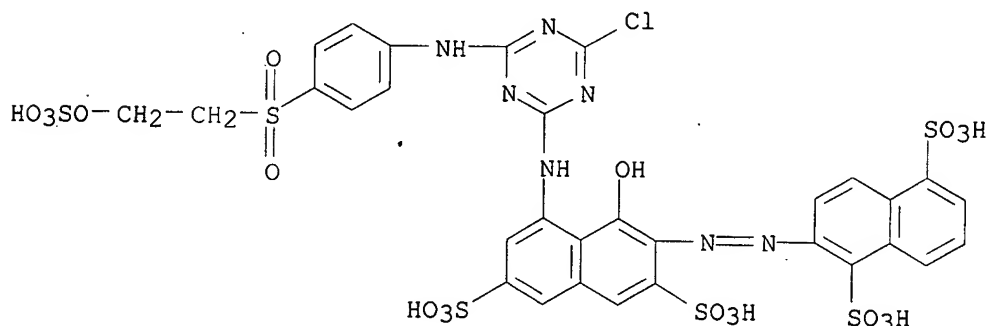


PAGE 1-B



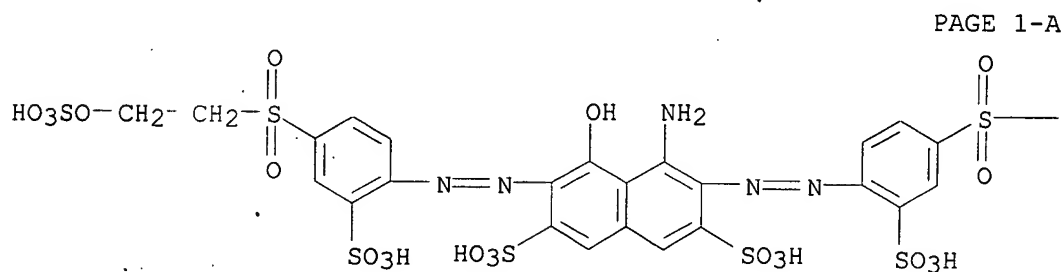
RN 133608-49-8 HCA

CN 1,5-Naphthalenedisulfonic acid, 2-[[[8-[[4-chloro-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-1-hydroxy-3,6-disulfo-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)



RN 186609-01-8 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3,6-bis[[2-sulfo-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



PAGE 1-A

PAGE 1-B

—CH₂—CH₂—OSO₃H

IT 314739-40-7

RL: TEM (Technical or engineered material use); USES (Uses)
(navy blue mixt.; reactive dye mixts. for application to cotton)

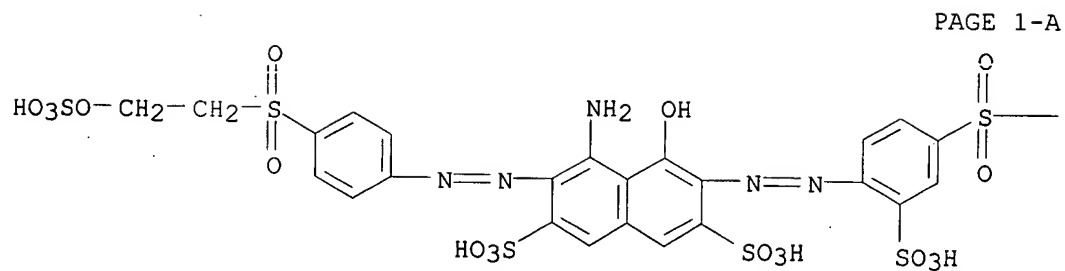
RN 314739-40-7 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3,6-bis[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-, mixt. with 4-amino-5-hydroxy-3,6-bis[[2-sulfo-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-2,7-naphthalenedisulfonic acid and 4-amino-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-6-[[2-sulfo-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-2,7-naphthalenedisulfonic acid (9CI)
(CA INDEX NAME)

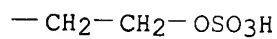
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CRN 257287-28-8

CMF C26 H25 N5 O22 S7



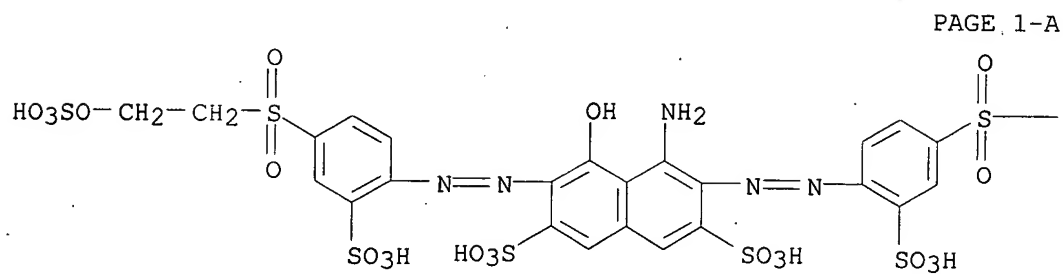
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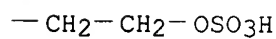
CM 2

CRN 186609-01-8

CMF C26 H25 N5 O25 S8



PAGE 1-B

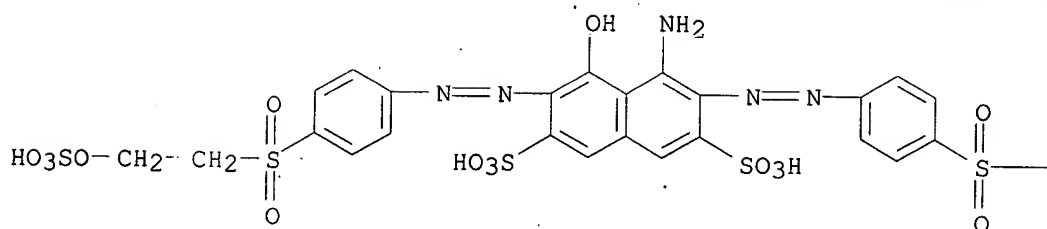


CM 3

CRN 55909-92-7

CMF C26 H25 N5 O19 S6

PAGE 1-A



PAGE 1-B

—CH₂—CH₂—OSO₃H

L35 ANSWER 3 OF 4 HCA COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 132:138773 HCA
 TITLE: Aqueous biuret-containing reactive-dye compositions having temperature and color stability, and uses as printing paste thereof
 INVENTOR(S): Breuninger, Hartmut; Grimm, Roland
 PATENT ASSIGNEE(S): Clariant Finance (BVI) Limited, Virgin I. (Brit.); Clariant International Ltd.
 SOURCE: PCT Int. Appl., 15 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

Feb 2000

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000006653	A2	20000210	WO 1999-IB1339	19990728
WO 2000006653	A3	20000427		
W: BR, CN, ID, IN, JP, MX, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
BR 9912564	A	20010502	BR 1999-12564	19990728
EP 1100848	A2	20010523	EP 1999-931402	19990728
EP 1100848	B1	20021023		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002521549	T2	20020716	JP 2000-562441	19990728
AT 226614	E	20021115	AT 1999-931402	19990728
ES 2186376	T3	20030501	ES 1999-931402	19990728
PRIORITY APPLN. INFO.: EP 1998-810726 A 19980729				
WO 1999-IB1339 W 19990728				

AB The aq. reactive-dye compns. comprise at least one reactive dye, biuret, and optionally at least one formulating additive such as urea, basic or cationic solubilizer, alkali metal salt of a mineral acid, surfactant, defoamer and biocide. The reactive-dye compn. is used to formulate with a

thickener such as sodium alginate to form a printing paste for dyeable substrates such as cotton cretonne, cotton tricot and cotton poplin fabric. Thus, a printing paste comprising a biuret-contg. reactive-dye 10, 5% aq. sodium alginate thickener 50, sodium hydrogen carbonate 2, urea 5, and water 33 parts was used to print cotton cretonne, and the print was steamed at 102.degree. for 10 min, rinsed with cold/hot soap water, rinsed with anionic detergent and dried, and the print obtained from aged compn. stored for 8 wk at -20, 0, 20, 40, or 50.degree. was identical.

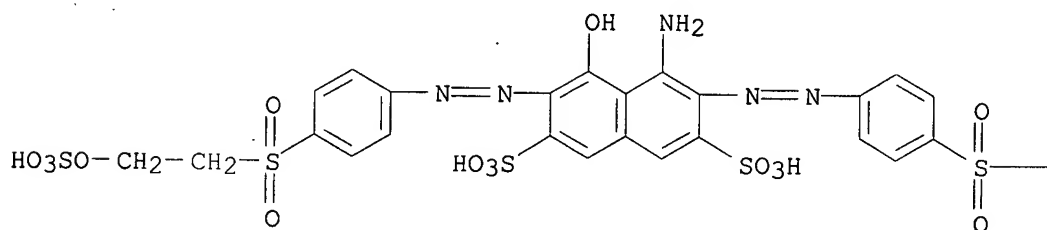
IT 55909-92-7 257287-28-8

RL: MOA (Modifier or additive use); RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses) (reactive dye; aq. biuret-contg. reactive-dye compns. having temp. and color stability)

RN 55909-92-7 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3,6-bis[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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R 135

Claim 155

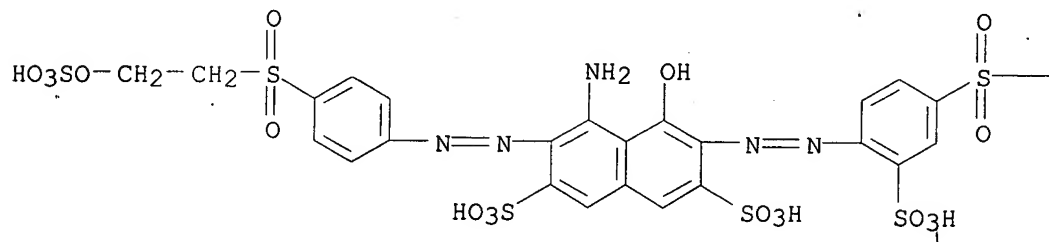
PAGE 1-B

—CH₂—CH₂—OSO₃H

RN 257287-28-8 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-6-[[2-sulfo-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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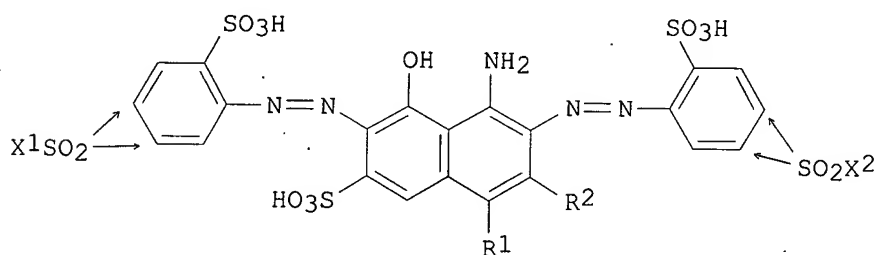
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PAGE 1-B

—CH₂—CH₂—OSO₃H

L35 ANSWER 4 OF 4 HCA COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 126:173014 HCA
 TITLE: Disazo reactive dyes, their preparation and their use
 INVENTOR(S): Jaeger, Horst; Wolff, Joachim; Hoppe, Manfred
 PATENT ASSIGNEE(S): Bayer A.-G., Germany
 SOURCE: Ger. Offen., 7 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

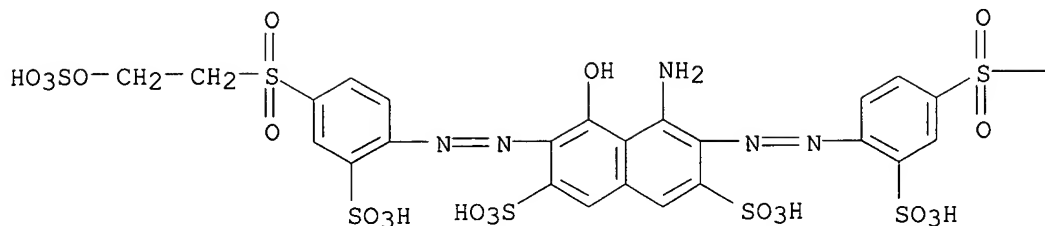
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19523245	A1	19970102	DE 1995-19523245	19950627 <--
PRIORITY APPLN. INFO.: MARPAT 126:173014			DE 1995-19523245	19950627
OTHER SOURCE(S):				
GI				



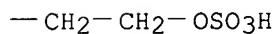
I

- AB Disazo reactive dyes (I; R₁, R₂ = H, sulfo; X₁, X₂ = vinyl or group convertible thereto under alk. conditions) are obtained from an aminohydroxynaphthalenesulfonic acid coupling component and an aminobenzenesulfonic acid diazo component. I have good fastness and application properties for reactive dyeing and printing of fibrous substrates. In an example, 4-(.beta.-sulfatoethylsulfonyl)aniline-2-sulfonic acid.fwdarw.H acid (2:1) was obtained which provided fast navy blue to black shades on cotton.
- IT **186609-01-8P**
 RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (disazo reactive dye prepn. for cotton)
- RN 186609-01-8 HCA
- CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3,6-bis[[2-sulfo-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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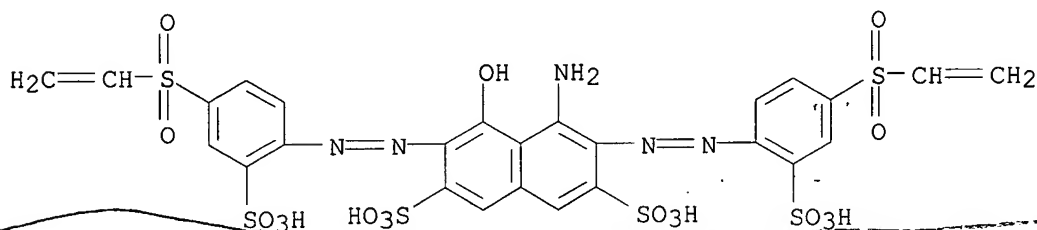


IT 186609-02-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(disazo reactive dye prepn. for cotton)

RN 186609-02-9 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-3,6-bis[[4-(ethenylsulfonyl)-2-sulfophenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)



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=> d L59 1-14 cbib abs hitstr

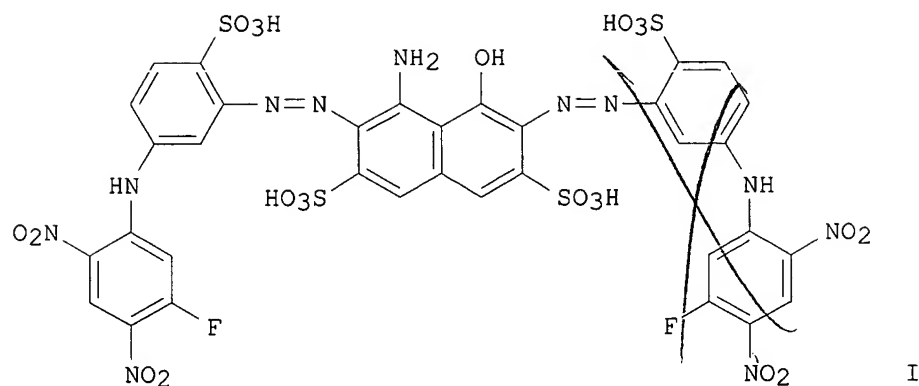
L59 ANSWER 1 OF 14 HCA COPYRIGHT 2003 ACS

131:6563 Preparation of reactive dyes containing a halobenzene nucleus.

Taylor, John Anthony; Rabjohns, Michael Alan (BASF Aktiengesellschaft, Germany). PCT Int. Appl. WO 9927019 A2 (19990603), 121 pp.

DESIGNATED STATES: W: BR, CN, ID, JP, KR, TR, US; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1998-GB3406 19981112. PRIORITY: GB 1997-23924 19971112.

GI



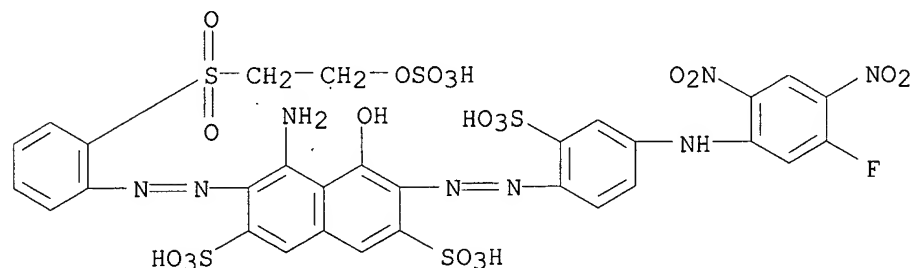
AB Reactive dyes having at least one halobenzene nucleus linked to a chromophoric group via an amino linkage and addnl. contg. a second reactive group were prepd. E.g., fluorodinitrophenyl-substituted azo dye I was prepd. The reactive dyes were used to dye textiles and may be used to prep. inks.

IT 225651-39-8P 225651-40-1P 225651-43-4P
225651-49-0P 225651-50-3P 225651-51-4P
225651-52-5P 225651-54-7P 225651-59-2P
225651-61-6P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (dark bluish-green dye; prepn. of reactive dyes contg. a halobenzene nucleus)

RN 225651-39-8 HCA

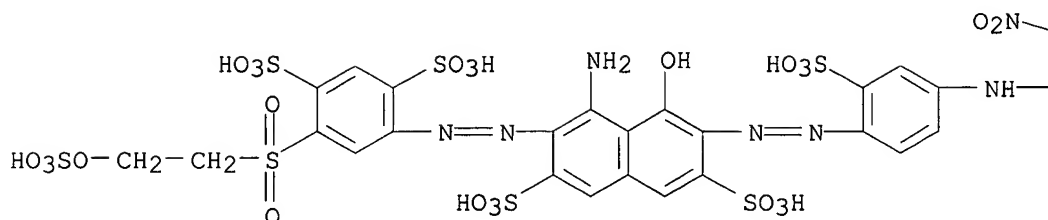
CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[4-[(5-fluoro-2,4-dinitrophenyl)amino]-2-sulfophenyl]azo]-5-hydroxy-3-[[2-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



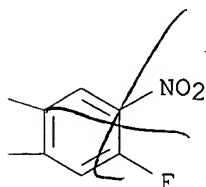
RN 225651-40-1 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[2,4-disulfo-5-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]-6-[[4-[(5-fluoro-2,4-dinitrophenyl)amino]-2-sulfophenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)

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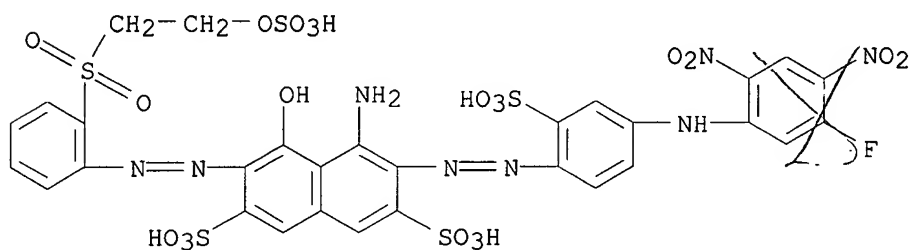


PAGE 1-B



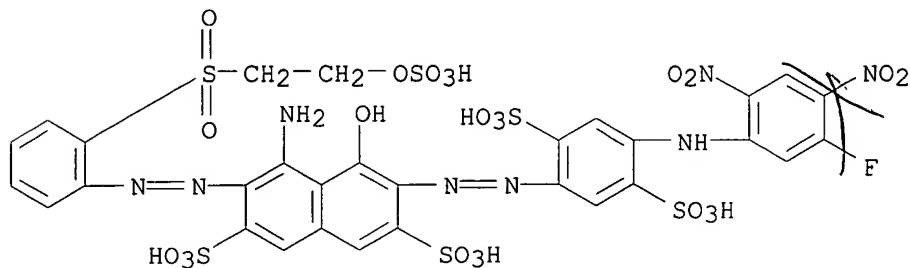
RN 225651-43-4 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[4-[(5-fluoro-2,4-dinitrophenyl)amino]-2-sulphophenyl]azo]-5-hydroxy-6-[[2-[(2-sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



RN 225651-49-0 HCA

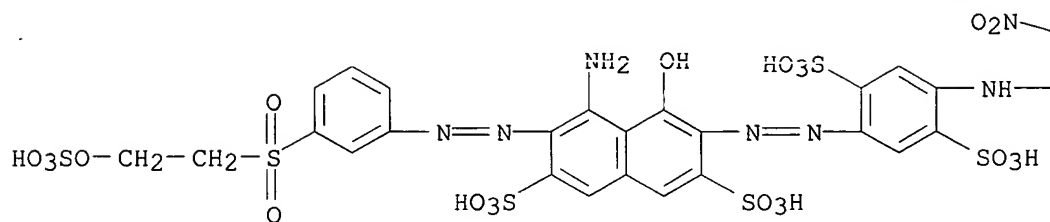
2,7-Naphthalenedisulfonic acid, 4-amino-6-[[4-[(5-fluoro-2,4-dinitrophenyl)amino]-2,5-disulfophenyl]azo]-5-hydroxy-3-[[2-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



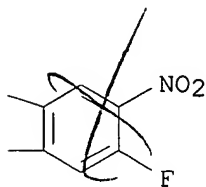
RN 225651-50-3 HCA

2,7-Naphthalenedisulfonic acid, 4-amino-6-[[4-[(5-fluoro-2,4-dinitrophenyl)amino]-2,5-disulfophenyl]azo]-5-hydroxy-3-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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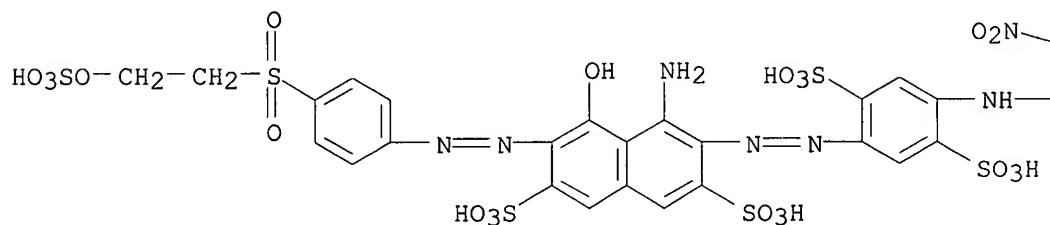
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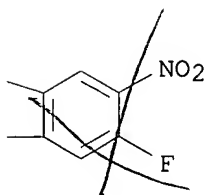
RN 225651-51-4 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[4-[(5-fluoro-2,4-dinitrophenyl)amino]-2,5-disulphophenyl]azo]-5-hydroxy-6-[[4-[(2-sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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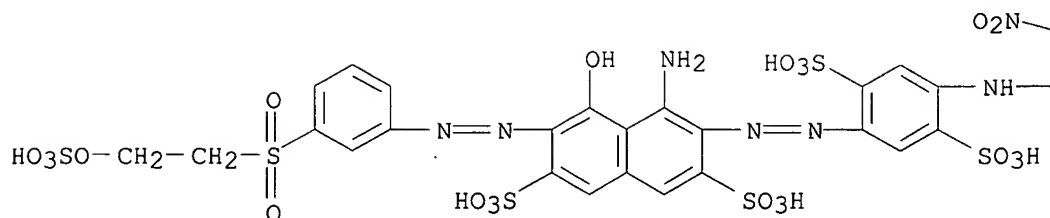
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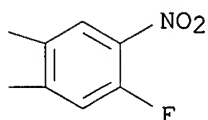
RN 225651-52-5 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[4-[(5-fluoro-2,4-dinitrophenyl)amino]-2,5-disulphophenyl]azo]-5-hydroxy-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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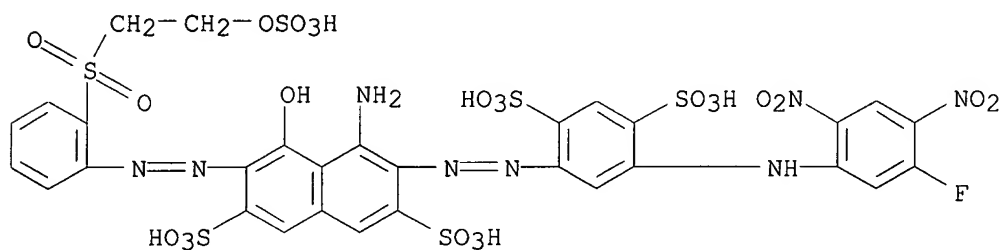


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RN 225651-54-7 HCA

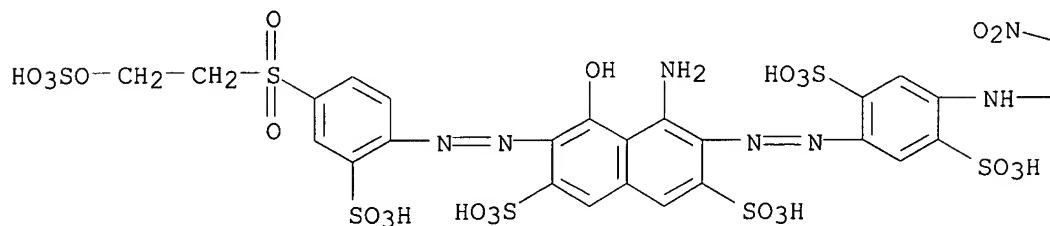
CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[5-[[5-fluoro-2,4-dinitrophenyl]amino]-2,4-disulfophenyl]azo]-5-hydroxy-6-[[2-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



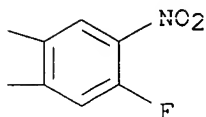
RN 225651-59-2 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[4-[[5-fluoro-2,4-dinitrophenyl]amino]-2,5-disulfophenyl]azo]-5-hydroxy-6-[[2-sulfo-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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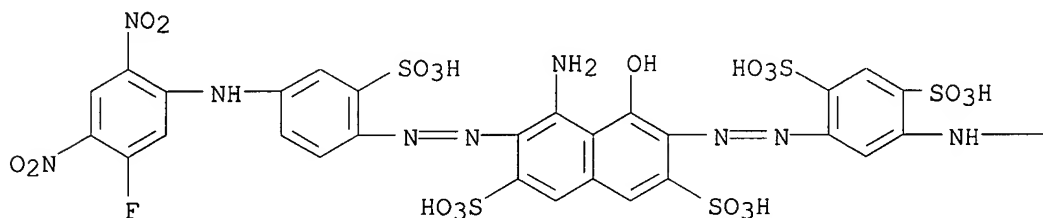


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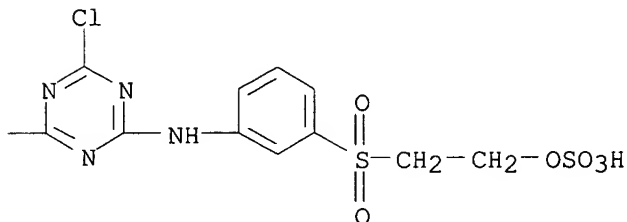


RN 225651-61-6 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-chloro-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2,4-disulfophenyl]azo]-3-[[4-[(5-fluoro-2,4-dinitrophenyl)amino]-2-sulfophenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)

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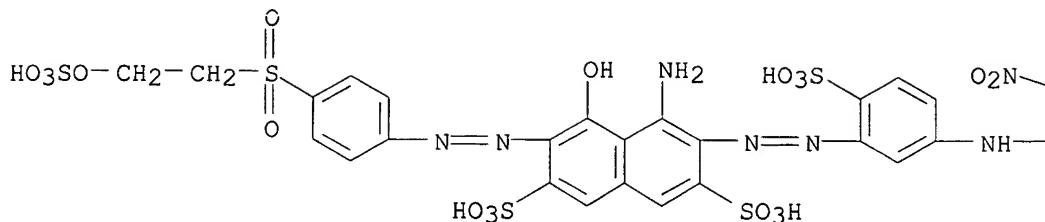


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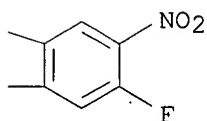


IT 225651-90-1P
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (golden yellow dye; prepn. of reactive dyes contg. a halobenzene nucleus)
 RN 225651-90-1 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[5-[(5-fluoro-2,4-dinitrophenyl)amino]-2-sulfophenyl]azo]-5-hydroxy-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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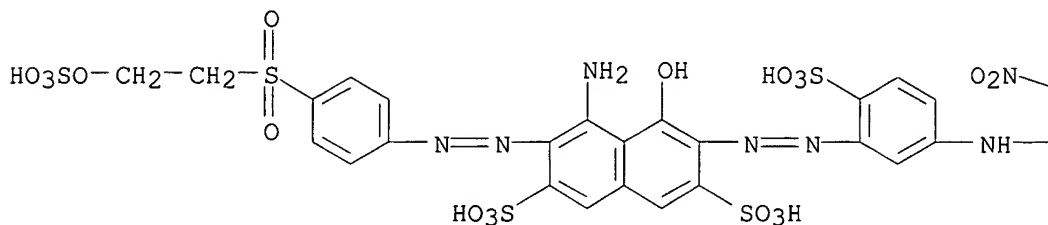
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 225651-38-7P 225651-42-3P 225651-45-6P
 225651-46-7P 225651-47-8P 225651-48-9P
 225651-53-6P 225651-55-8P 225651-56-9P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM
 (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (greenish-navy dye; prepn. of reactive dyes contg. a halobenzene
 nucleus)

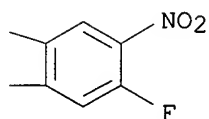
RN 225651-19-4 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[(5-fluoro-2,4-
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 (sulfoxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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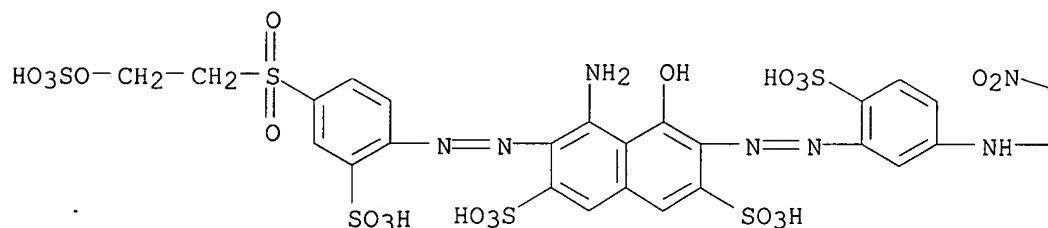


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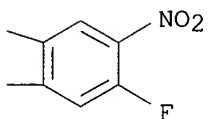


RN 225651-23-0 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[(5-fluoro-2,4-dinitrophenyl)amino]-2-sulfophenyl]azo]-5-hydroxy-3-[[2-sulfo-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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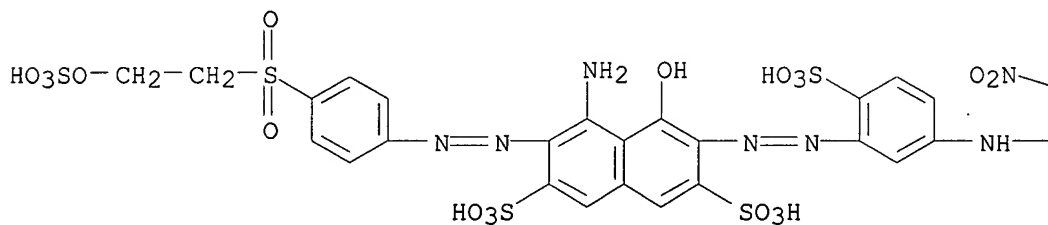


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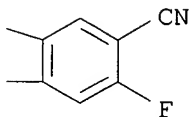


RN 225651-24-1 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[(4-cyano-5-fluoro-2-nitrophenyl)amino]-2-sulfophenyl]azo]-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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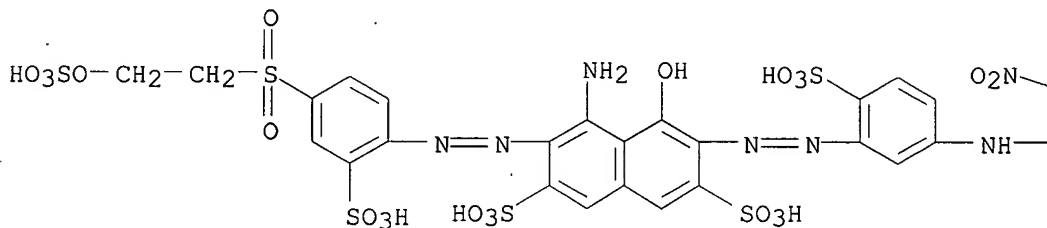
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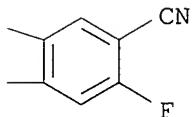
RN 225651-25-2 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[(4-cyano-5-fluoro-2-nitrophenyl)amino]-2-sulfo-phenyl]azo]-5-hydroxy-3-[[2-sulfo-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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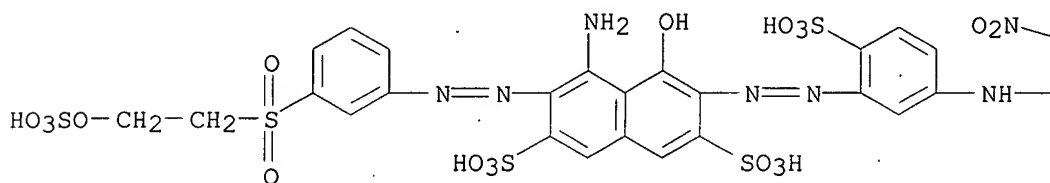
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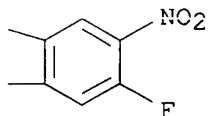
RN 225651-26-3 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[(5-fluoro-2,4-dinitrophenyl)amino]-2-sulfo-phenyl]azo]-5-hydroxy-3-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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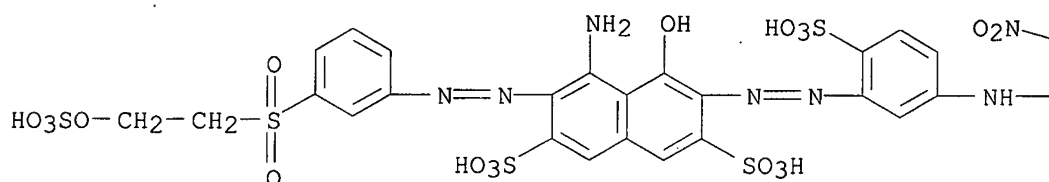
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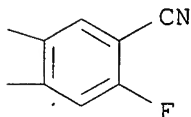
RN 225651-27-4 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[(4-cyano-5-fluoro-2-nitrophenyl)amino]-2-sulfohenyl]azo]-5-hydroxy-3-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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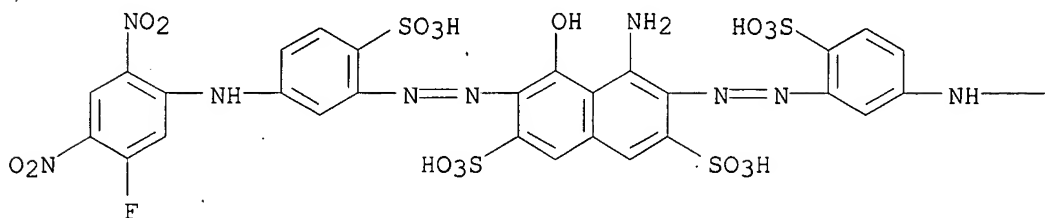
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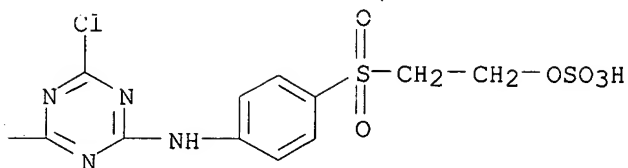
RN 225651-29-6 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[5-[[4-chloro-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfohenyl]azo]-6-[[5-[(5-fluoro-2,4-dinitrophenyl)amino]-2-sulfohenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)

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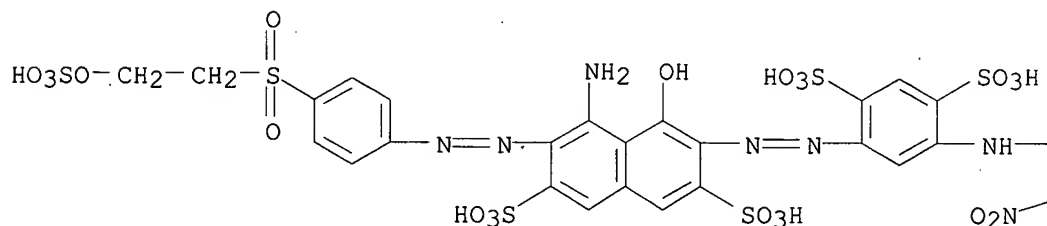
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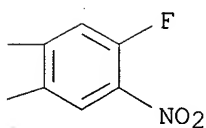
RN 225651-34-3 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[(5-fluoro-2,4-dinitrophenyl)amino]-2,4-disulfophenyl]azo]-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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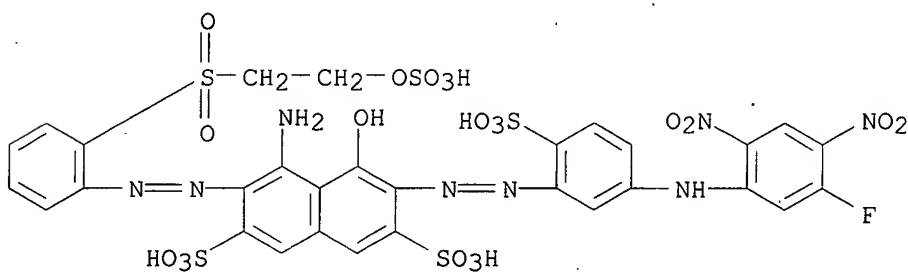


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RN 225651-36-5 HCA

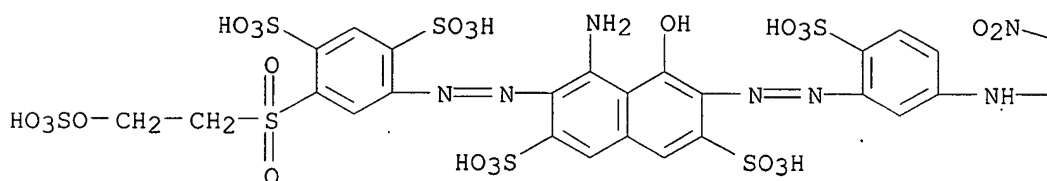
CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[(5-fluoro-2,4-dinitrophenyl)amino]-2-sulfophenyl]azo]-5-hydroxy-3-[[2-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



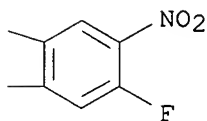
RN 225651-38-7 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[2,4-disulfo-5-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-6-[[5-[(5-fluoro-2,4-dinitrophenyl)amino]-2-sulfophenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)

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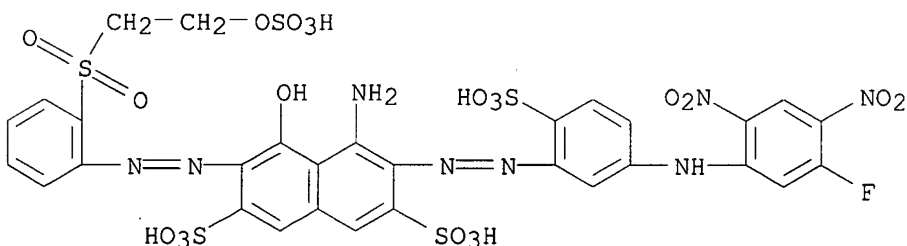


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RN 225651-42-3 HCA

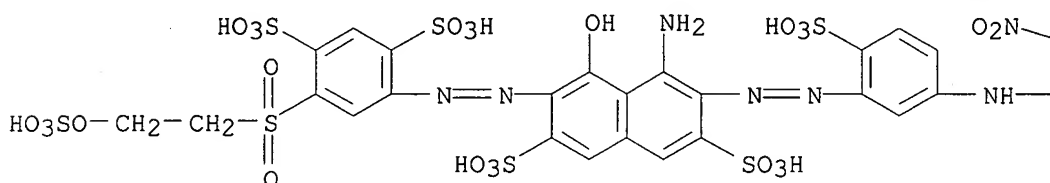
CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[5-[(5-fluoro-2,4-dinitrophenyl)amino]-2-sulfophenyl]azo]-5-hydroxy-6-[[2-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



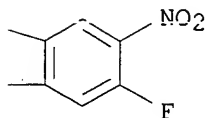
RN 225651-45-6 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[2,4-disulfo-5-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-3-[[5-[(5-fluoro-2,4-dinitrophenyl)amino]-2-sulfophenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)

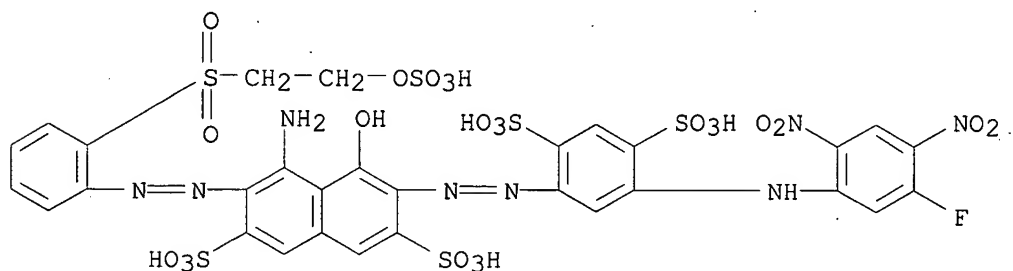
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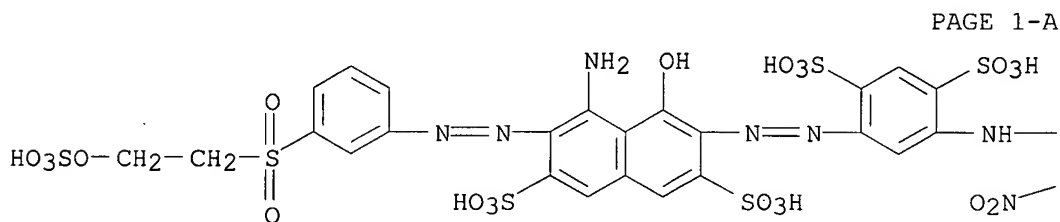
PAGE 1-B



RN 225651-46-7 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[(5-fluoro-2,4-dinitrophenyl)amino]-2,4-disulfoophenyl]azo]-5-hydroxy-3-[[2-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

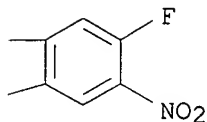


RN 225651-47-8 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[(5-fluoro-2,4-dinitrophenyl)amino]-2,4-disulfoophenyl]azo]-5-hydroxy-3-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



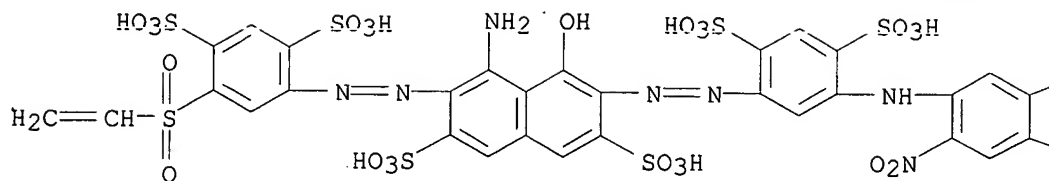
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RN 225651-48-9 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[5-(ethenylsulfonyl)-2,4-disulfoophenyl]azo]-6-[[5-[(5-fluoro-2,4-dinitrophenyl)amino]-2,4-disulfoophenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)

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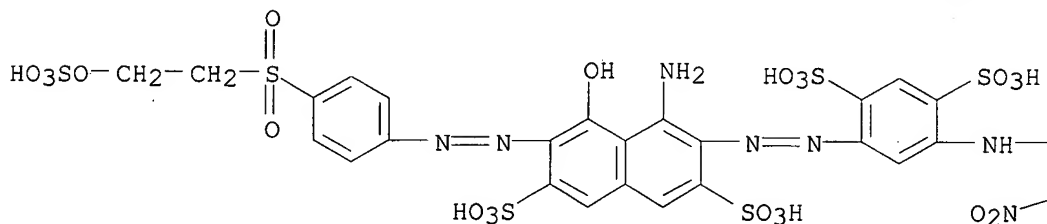
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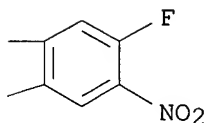
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RN 225651-53-6 HCA
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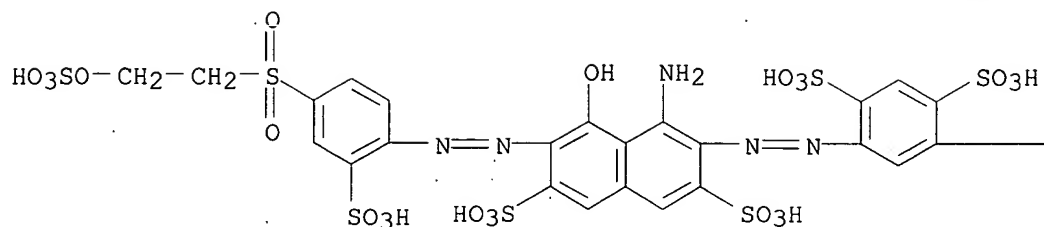


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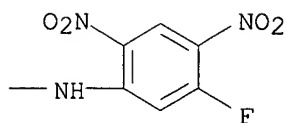


RN 225651-55-8 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[5-[(5-fluoro-2,4-dinitrophenyl)amino]-2,4-disulfophenyl]azo]-5-hydroxy-6-[[2-sulfo-4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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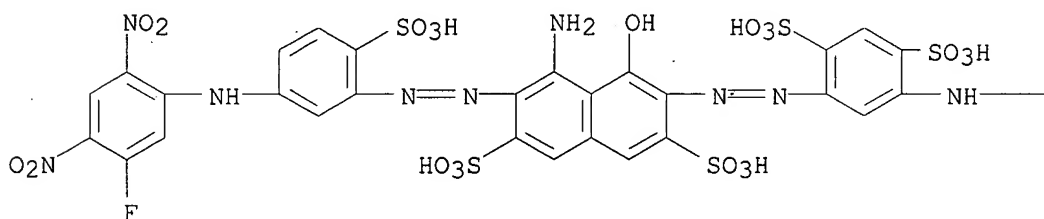


PAGE 1-B

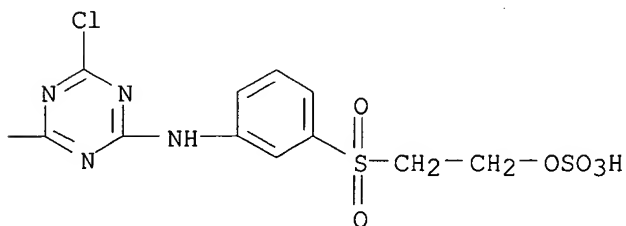


RN 225651-56-9 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-chloro-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2,4-disulphophenyl]azo]-3-[[5-[(5-fluoro-2,4-dinitrophenyl)amino]-2-sulphophenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

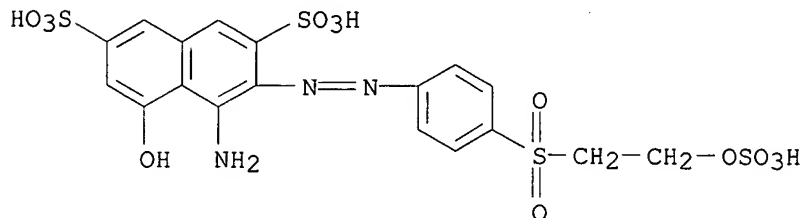


IT 82572-37-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of reactive dyes contg. a halobenzene nucleus)

RN 82572-37-0 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



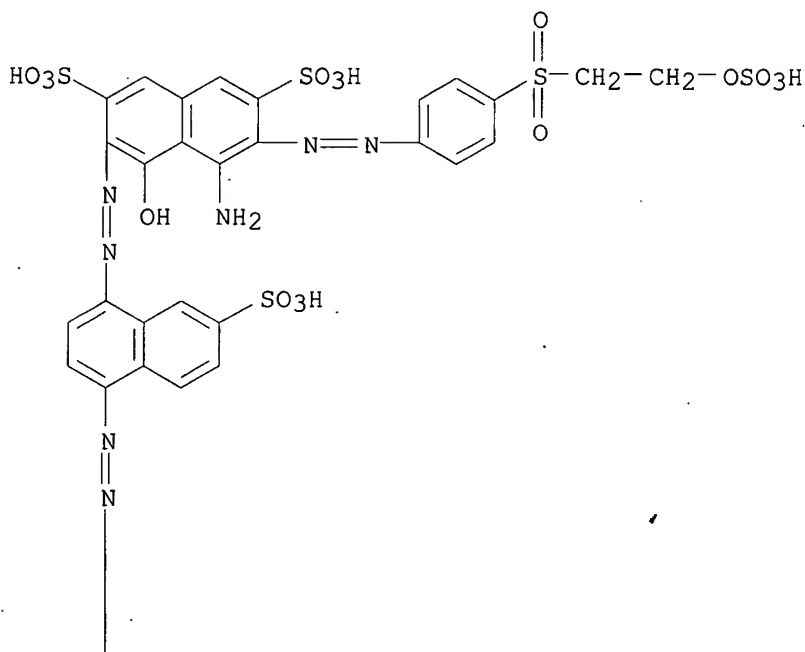
IT 225651-28-5P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (very dull dark green dye; prepn. of reactive dyes contg. a halobenzene nucleus)

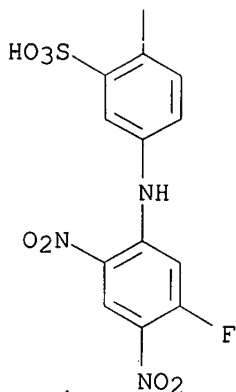
RN 225651-28-5 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[4-[[4-[[5-fluoro-2,4-dinitrophenyl]amino]-2-sulphophenyl]azo]-7-sulfo-1-naphthalenyl]azo]-5-hydroxy-3-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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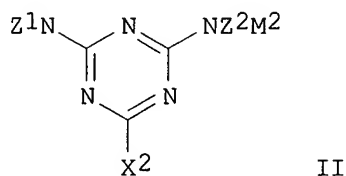
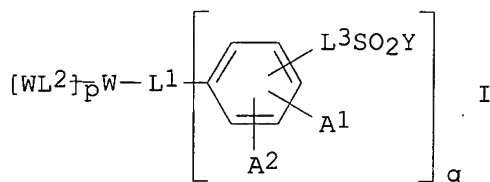


PAGE 2-A



L59 ANSWER 2 OF 14 HCA COPYRIGHT 2003 ACS
 130:129759 Use of reactive dyes for hair coloring. Precht1, Frank; Patsch, Manfred; Hoessel, Peter (BASF A.-G., Germany). Ger. Offen. DE 19731166 A1
 19990128 26 pp. (German). CODEN: GWXXBX. APPLICATION: DE
 1997-19731166 19970721.

GI



AB Reactive dyes for N-contg. fibers, esp. human hair, are provided which utilize gentle dyeing conditions such as near-neutral pH values, low temps., and short dyeing times. These dyes are based on sulfophenyl-substituted mono- or diazo, triphendioxazine, anthraquinone, metalated formazan, or metalated phthalocyanine chromophores I [W = coupler, chromophore; L1 = N:N, SO2NZ1, C(O)NZ1, Z1SO2, Z1NC(O), Z1NC(O)NZ2, NZ1, II-M2; L2 = II, II-L4-II; L3 = bond, C(O)NHM1; L4 = C2-8 alkylene, (substituted) C6H4; A1 = SO3H, SO2Y; A2 = H, SO3H, OMe, Cl, Br, CO2H; Y = CH:CH2, CH2CH2Q; Q = alkali-cleavable group; p = 1, 2; q = 0, 1; Z1, Z2 = H, Cl-6 alkyl, Ph; M1 = C2-6 alkylene optionally interrupted with 1-2 nonadjacent O, C:NX1; M2 = bond, CH2; X1 = H, Cl-4 alkyl; X2 = F, Cl, Br, (substituted) amino, N-heterocyclyl]. Thus, 1-amino-3-(.beta.-

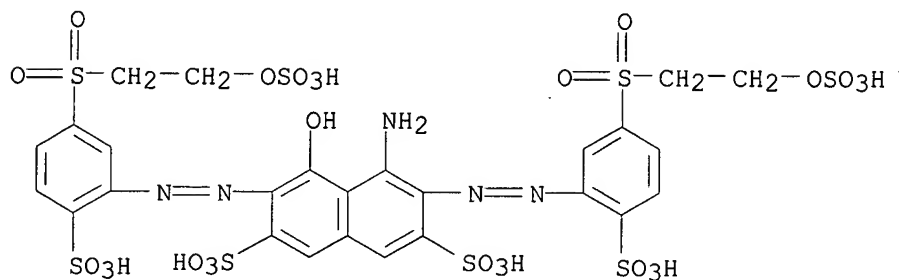
sulfatoethylsulfonyl)benzene-4,6-disulfonic acid was diazotized and reacted with 2-aminonaphthalene-5-sulfonic acid at 0-5.degree. to produce a water-sol. azo dye (III). Bleached hair immersed in a soln. of III for 20 min at 36.degree. took on a scarlet color. A hair dye cream contained cetareth-6 + stearyl alc. 1.5, cetareth-25 1.5, cetaryl octanoate 6.0, cetaryl alc. 3.0, III 2, propylene glycol 2, citric acid or triethanolamine to pH 7, preservative, perfume oil, and distd. water 84 g.

IT 219970-44-2P 219970-45-3P 219970-46-4P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(use of reactive dyes for hair coloring)

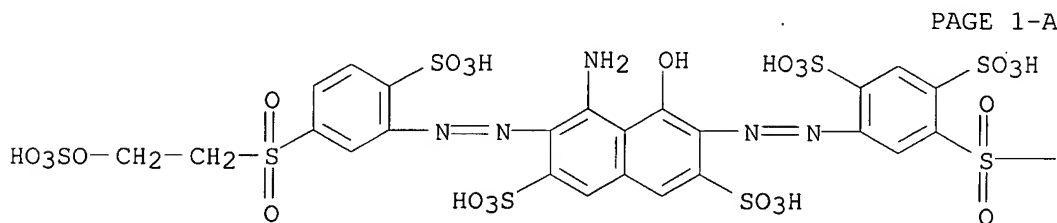
RN 219970-44-2 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3,6-bis[[2-sulfo-5-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



RN 219970-45-3 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[2,4-disulfo-5-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-5-hydroxy-3-[[2-sulfo-5-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



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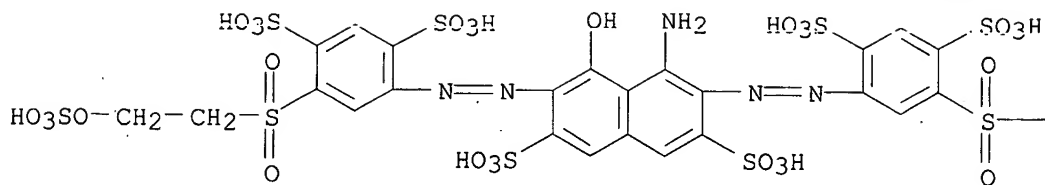
PAGE 1-B

-CH2-CH2-OSO3H

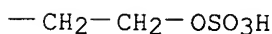
RN 219970-46-4 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-3,6-bis[[2,4-disulfo-5-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)

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L59 ANSWER 3 OF 14 HCA COPYRIGHT 2003 ACS

129:317579 Urea group-containing reactive disazo dyes, their preparation and their use. Schumacher, Christian (Dystar Textilfarben GmbH and Co. Deutschland Kg, Germany). Eur. Pat. Appl. EP 872523 A2 **19981021**, 70 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (German). CODEN: EPXXDW. APPLICATION: EP 1998-106359 19980407. PRIORITY: DE 1997-19715603 19970415.

AB Disazo reactive dyes are prep'd. from a conventional, nonchromophoric diisocyanate and 2 amines; the amines may be diazo or coupling components and may have fiber-reactive groups, or the desired functions may be incorporated stepwise during the prepn. of the dyes. The dyes have good fastness and are applicable under low-salt conditions to carboxamide and hydroxyl group-contg. fibrous substrates. In an example, 1 mol 2,4-TDI was condensed with 2 mol 1-amino-8-hydroxy-3,6-naphthalenedisulfonic acid to give a diurea coupling component which with 2 mol 4-(.beta.-sulfatoethylsulfonyl)aniline diazo component provided a red (.lambda.max 522 nm) dye.

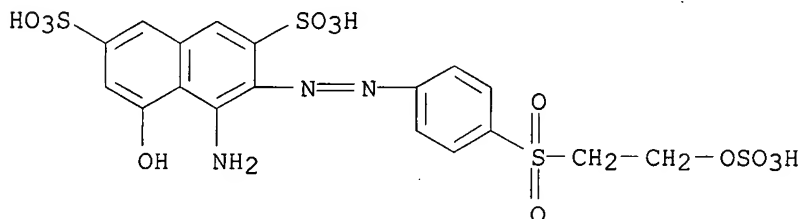
IT **82572-37-0**

RL: RCT (Reactant); RACT (Reactant or reagent)

(coupling component; prepn. of urea group-contg. disazo reactive dyes)

RN 82572-37-0 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

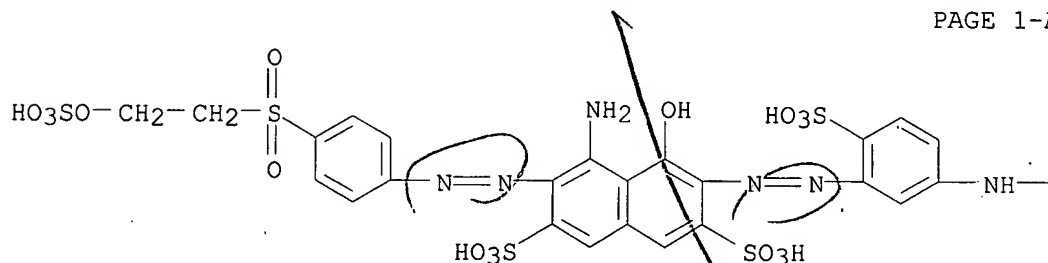
IT **214897-23-1P 214897-24-2P 214897-25-3P****214897-26-4P 214897-27-5P 214897-28-6P**

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

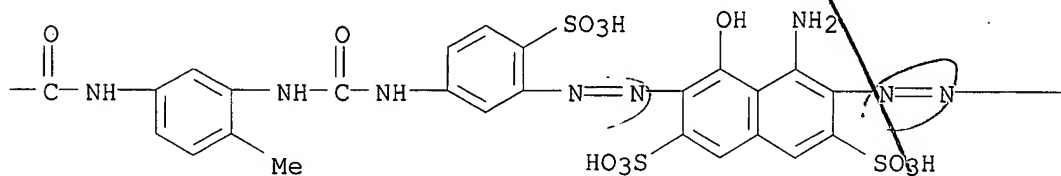
(navy blue dye; prepn. of urea group-contg. disazo reactive dyes)

RN 214897-23-1 HCA
 CN 2,7-Naphthalenedisulfonic acid, 3,3'-[(4-methyl-1,3-phenylene)bis[iminocarbonylimino(6-sulfo-3,1-phenylene)azo]]bis[5-amino-4-hydroxy-6-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

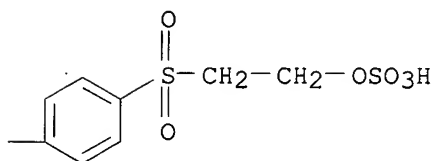
PAGE 1-A



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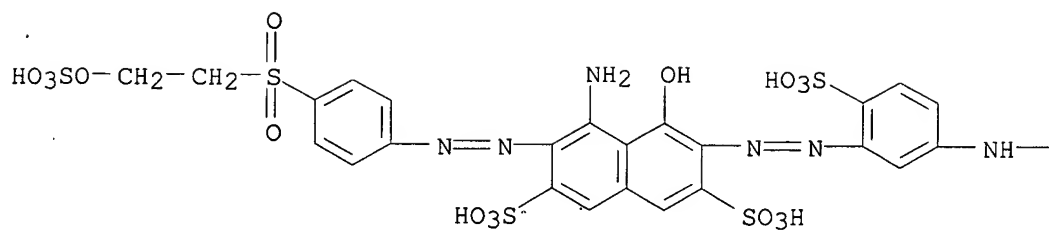


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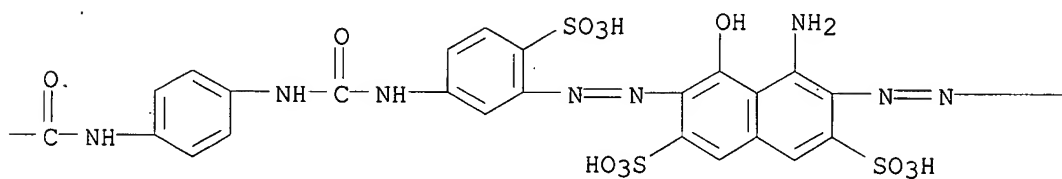


RN 214897-24-2 HCA
 CN 2,7-Naphthalenedisulfonic acid, 3,3'-[1,4-phenylenebis[iminocarbonylimino(6-sulfo-3,1-phenylene)azo]]bis[5-amino-4-hydroxy-6-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

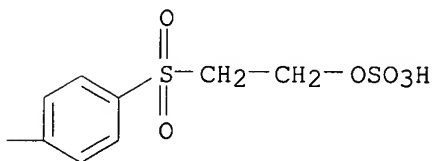
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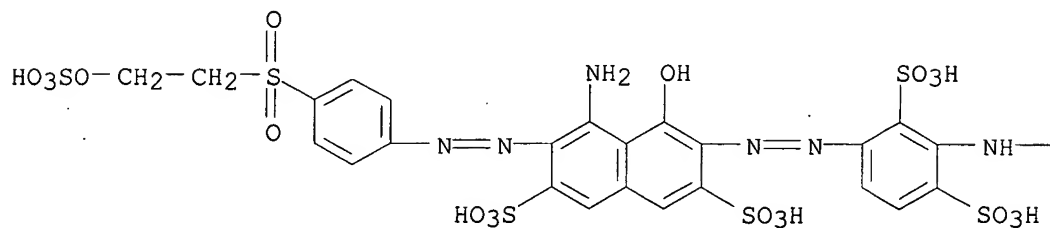


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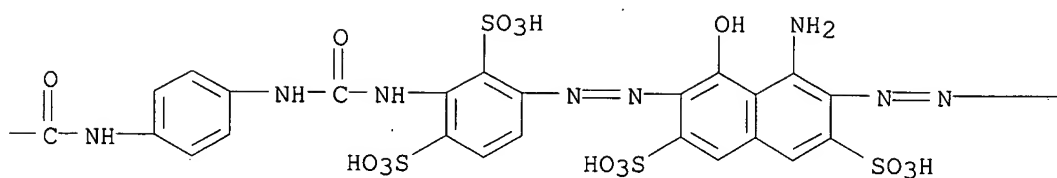


RN 214897-25-3 HCA
 CN 2,7-Naphthalenedisulfonic acid, 3,3'-[1,4-phenylenebis[iminocarbonylimino(2,4-disulfo-3,1-phenylene)azo]]bis[5-amino-4-hydroxy-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]]- (9CI) (CA INDEX NAME)

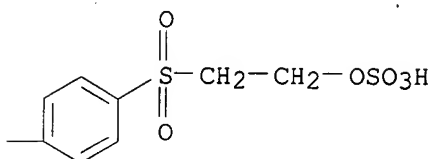
PAGE 1-A



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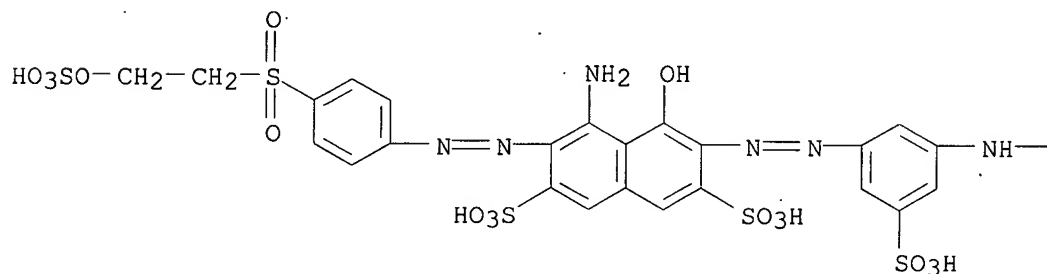
PAGE 1-C



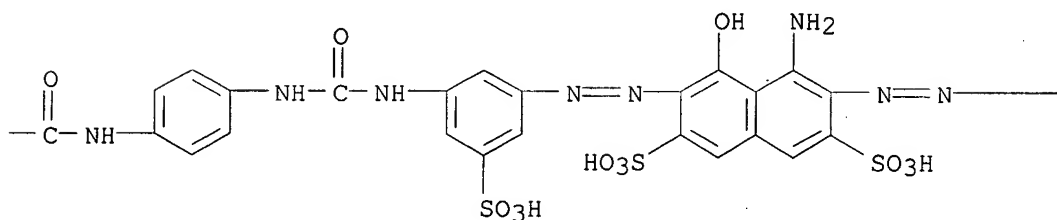
RN 214897-26-4 HCA

CN 2,7-Naphthalenedisulfonic acid, 3,3'-[1,4-phenylenebis[iminocarbonylimino(5-sulfo-3,1-phenylene)azo]]bis[5-amino-4-hydroxy-6-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

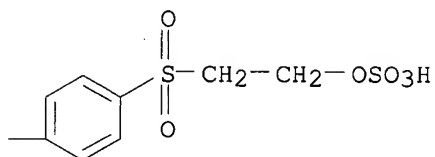
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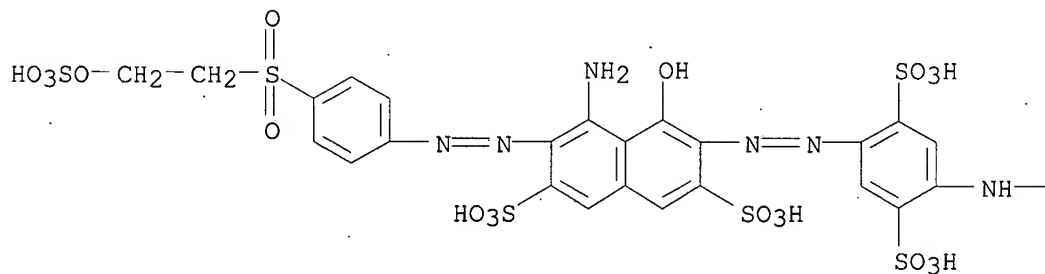


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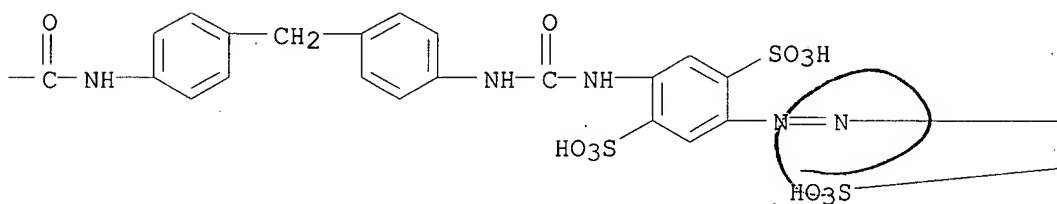


RN	214897-27-5	HCA
CN	2,7-Naphthalenedisulfonic acid, 3,3'-[methylenebis[4,1-phenyleneiminocarbonylimino(2,5-disulfo-4,1-phenylene)azo]]bis[5-amino-4-hydroxy-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)	

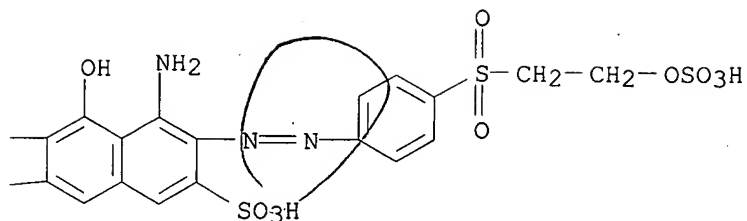
PAGE 1-A



PAGE 1-B

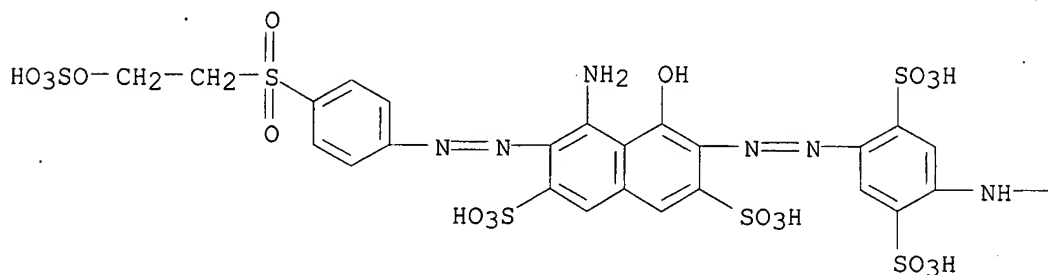


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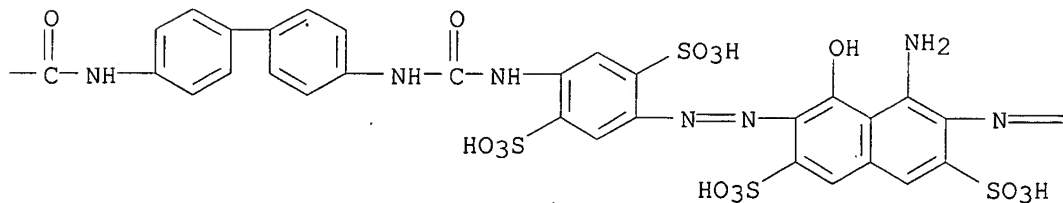


RN 214897-28-6 HCA
 CN 2,7-Naphthalenedisulfonic acid, 3,3'-[[[1,1'-biphenyl]-4,4'-diylbis[iminocarbonylimino(2,5-disulfo-4,1-phenylene)azo]]bis[5-amino-4-hydroxy-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

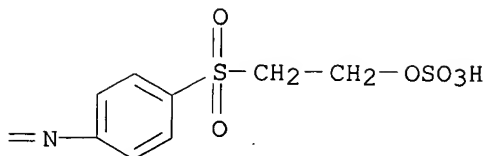
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IT 214896-39-6P

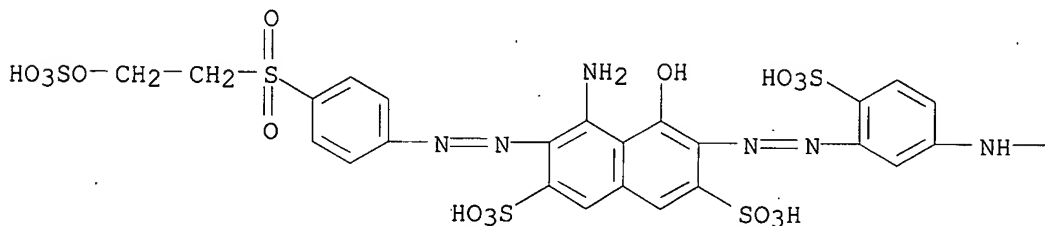
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(navy blue/black dye; prepn. of urea group-contg. disazo reactive dyes)

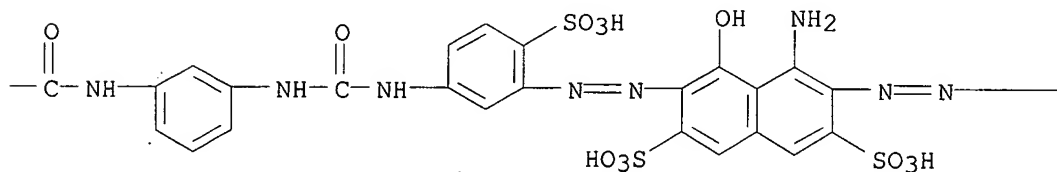
RN 214896-39-6 HCA

CN 2,7-Naphthalenedisulfonic acid, 3,3'-[1,3-phenylenebis[iminocarbonylimino(6-sulfo-3,1-phenylene)azo]]bis[5-amino-4-hydroxy-6-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

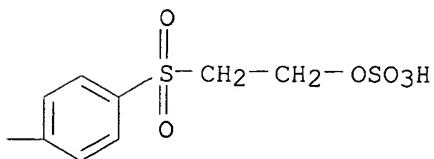
PAGE 1-A



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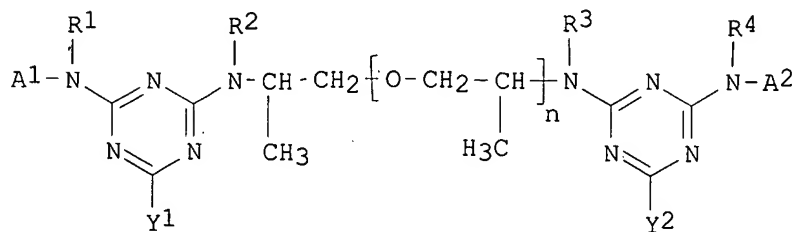
L59 ANSWER 4 OF 14 HCA COPYRIGHT 2003 ACS

126:119057 Oligopropylene glycol-based reactive azo dyes, their preparation and their use. Mueller, Bernhard; Nowack, Patric (Ciba-Geigy A.-G., Switz.). Eur. Pat. Appl. EP 748850 A1 19961218, 77 pp.

DESIGNATED STATES: R: BE, CH, DE, ES, FR, GB, IT, LI, PT. (German).

CODEN: EPXXDW. APPLICATION: EP 1996-810366 19960605. PRIORITY: CH 1995-1766 19950614.

GI



I

AB The dyes (I; A1, A2 = dye chromophore; R1, R2, R3, R4 = H, optionally substituted C1-4-alkyl; Y1, Y2 = halogen, carboxypyridinio, optionally substituted amino, heterocyclic amino; n = 1-7) are obtained from A1NHR2, A2NHR4, .gtoreq.1 halotriazine, and the appropriately amine-terminated oligopropylene glycol. I are suitable for dyeing and printing of cellulosic and polyamide fiber substrates and are characterized by good fastness and high color yield. In an example, cyanuric chloride was condensed with 4,6-diamino-1,3-benzenedisulfonic acid and the diazotized product was coupled with 1-ethyl-6-hydroxy-4-methyl-2-pyridone-3-carboxamide. The resulting dye was condensed with H2NCHMeCH2(OCH2CHMe)2NH2 to provide a colorant which was brilliant yellow on cotton.

IT 186051-71-8P 186051-72-9P 186051-73-0P

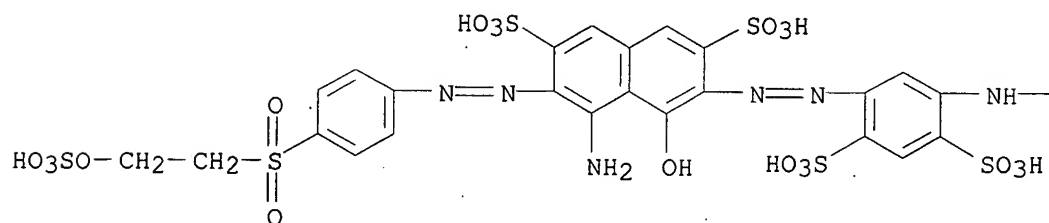
RL: IMF (Industrial manufacture); PREP (Preparation)

(oligopropylene glycol-based reactive azo dye prepn. and use)

RN 186051-71-8 HCA

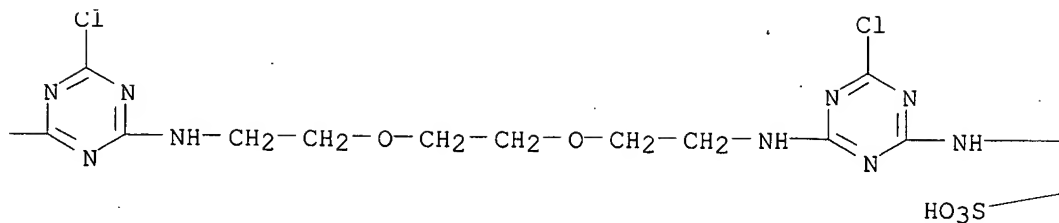
CN 2,7-Naphthalenedisulfonic acid, 3,3'-[(methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)imino(6-chloro-1,3,5-triazine-4,2-diyl)imino(4,6-disulfo-3,1-phenylene)azo]]bis[5-amino-4-hydroxy-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A

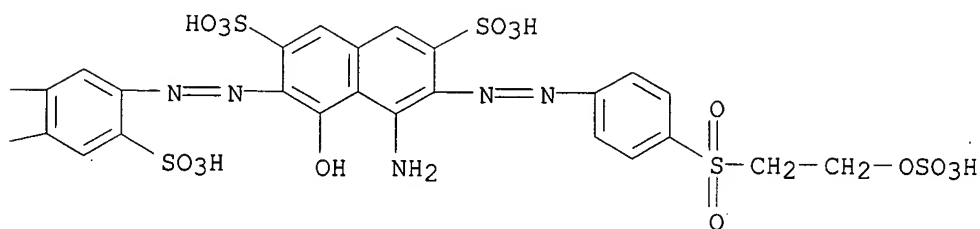


3 (D1-Me)

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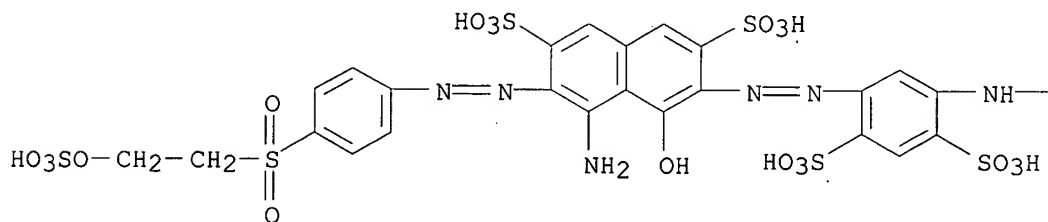


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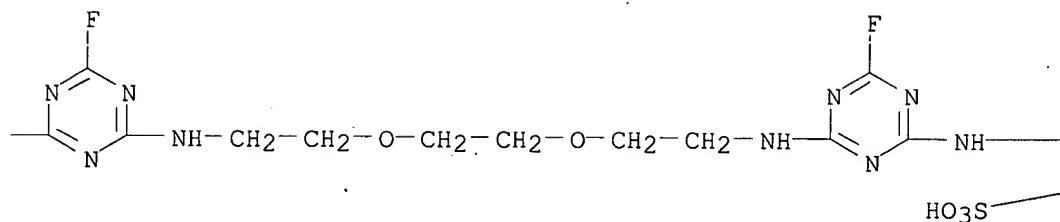
RN 186051-72-9 HCA
 CN 2,7-Naphthalenedisulfonic acid, 3,3'-[(methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)imino(6-fluoro-1,3,5-triazine-4,2-diyl)imino(4,6-disulfo-3,1-phenylene)azo]]bis[5-amino-4-hydroxy-6-[[4-[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A

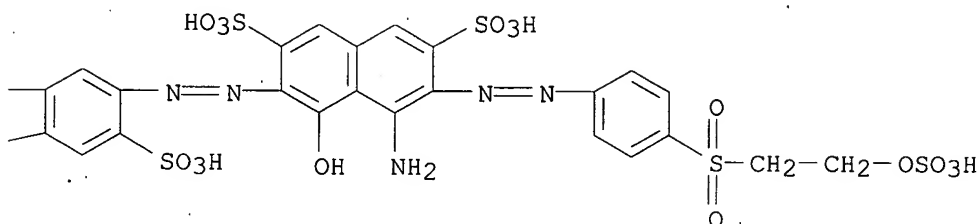


3 (Di-Me)

PAGE 1-B



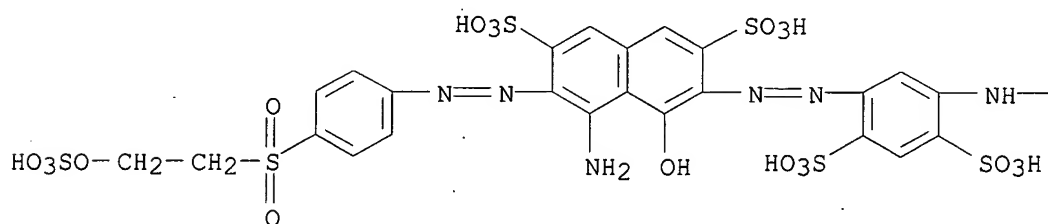
PAGE 1-C



RN 186051-73-0 HCA

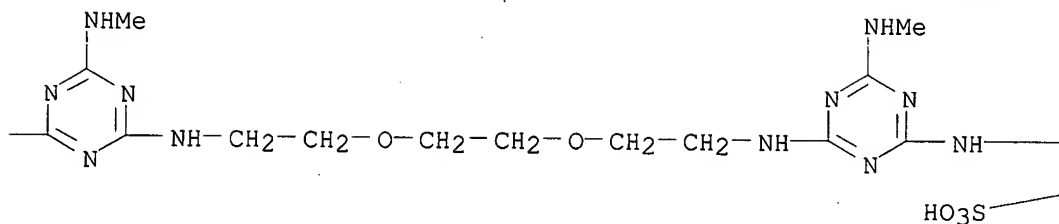
CN 2,7-Naphthalenedisulfonic acid, 3,3'-[(methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)imino[6-(methylamino)-1,3,5-triazine-4,2-diyl]imino(4,6-disulfo-3,1-phenylene)azo]]bis[5-amino-4-hydroxy-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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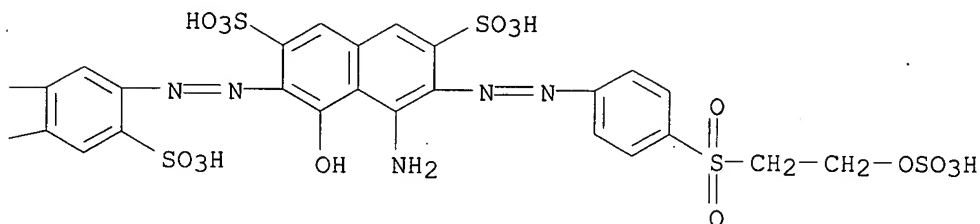


3 (D1-Me)

PAGE 1-B



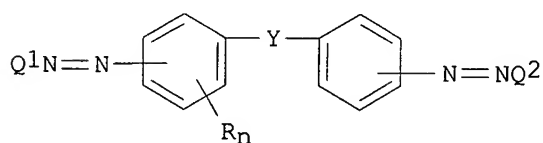
PAGE 1-C



L59 ANSWER 5 OF 14 HCA COPYRIGHT 2003 ACS

125:117383 Reactive polyazo dyes, their preparation and use. Deitz, Rolf; Mueller, Bernhard; Tzikas, Athanassios (Ciba-Geigy A.-G., Switz.). Eur. Pat. Appl. EP 716130 A1 **19960612**, 43 pp. DESIGNATED STATES: R: BE, CH, DE, ES, FR, GB, IT, LI, PT. (German). CODEN: EPXXDW. APPLICATION: EP 1995-810626 19951004. PRIORITY: CH 1994-3081 19941013.

GI



I

AB The dyes have the structure I, where Q1 and Q2 are coupling component residues, contg. .gtoreq.1 fiber-reactive group between them, each R is OH, halo, CN, SO3H, C1-4 alkyl, or C1-4 alkoxy, Y is NHCO, NHSO2, or SO2NHSO2, and n = 0-2, and contain .gtoreq.1 SO3H and/or OSO3H group. Thus, H acid was coupled with diazotized 4-H2NC6H4SO2CH2CH2OSO3H, and 2 mol of the monoazo intermediate were coupled with tetrazotized 4-H2NC6H4CONHC6H2(SO3H)2NH2-2,4,5 to give a fast navy blue dye for cellulose.

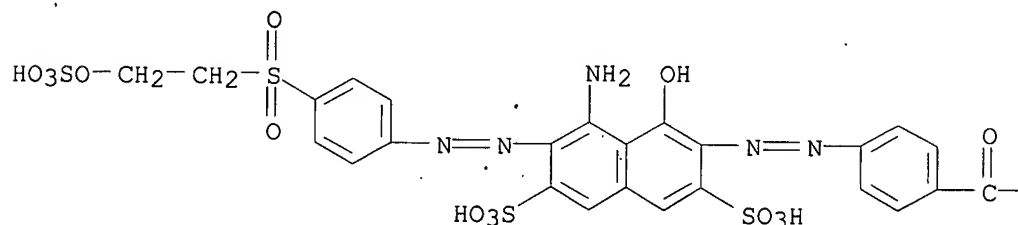
IT 179536-35-7P 179536-36-8P 179536-37-9P
179536-38-0P 179536-39-1P 179536-40-4P
179536-41-5P 179536-42-6P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

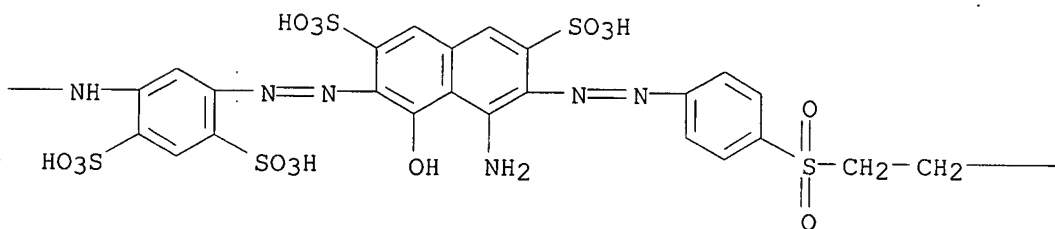
(navy blue; prepn. of reactive polyazo dyes for cellulosic fibers)

RN 179536-35-7 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-[[8-amino-1-hydroxy-3,6-disulfo-7-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-2-naphthalenyl]azo]benzoyl]amino]-2,4-disulfophenyl]azo]-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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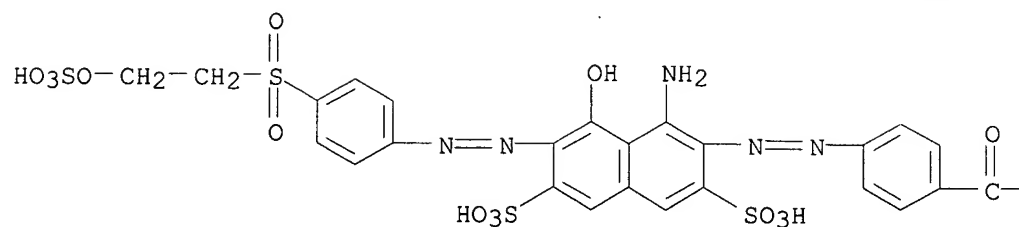


PAGE 1-C

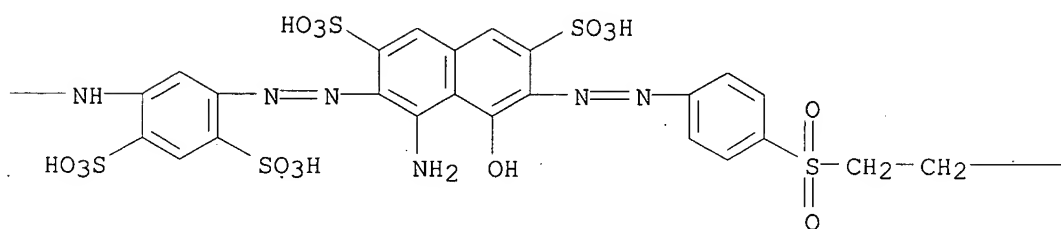
—OSO₃H

RN 179536-36-8 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[5-[[4-[[1-amino-8-hydroxy-3,6-disulfo-7-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-2-naphthalenyl]azo]benzoyl]amino]-2,4-disulfophenyl]azo]-5-hydroxy-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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PAGE 1-B



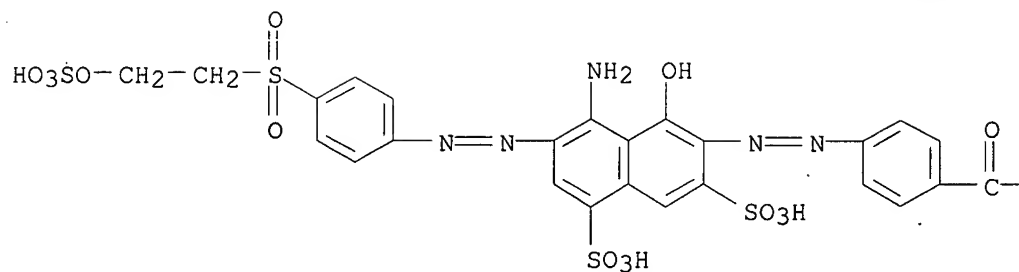
PAGE 1-C

—OSO₃H

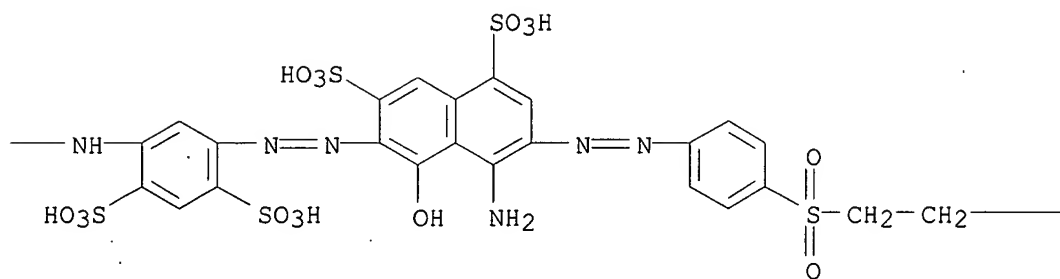
RN 179536-37-9 HCA

CN 1,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-[[8-amino-1-hydroxy-3,5-disulfo-7-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]-2-naphthalenyl]azo]benzoyl]amino]-2,4-disulfophenyl]azo]-5-hydroxy-3-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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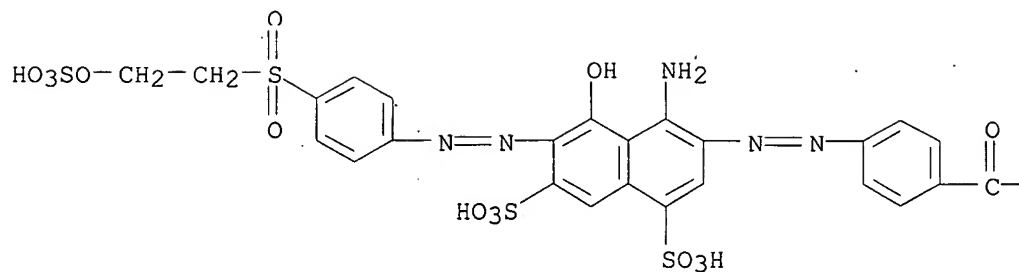


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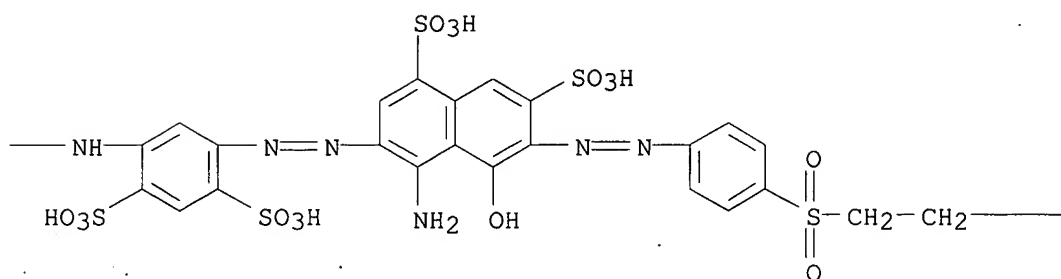
—OSO₃H

RN 179536-38-0 HCA
 CN 1,7-Naphthalenedisulfonic acid, 4-amino-3-[[5-[[4-[[1-amino-8-hydroxy-4,6-disulfo-7-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-2-naphthalenyl]azo]benzoyl]amino]-2,4-disulfophenyl]azo]-5-hydroxy-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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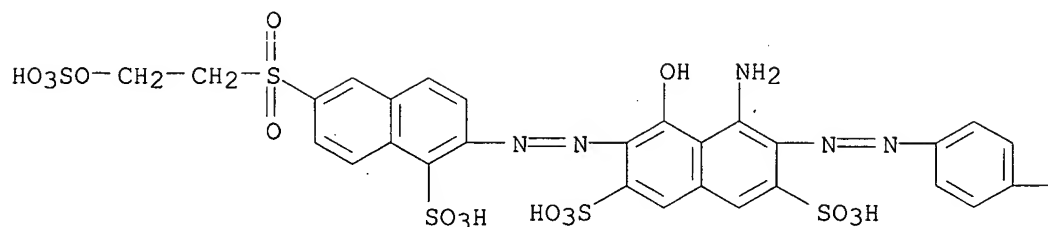


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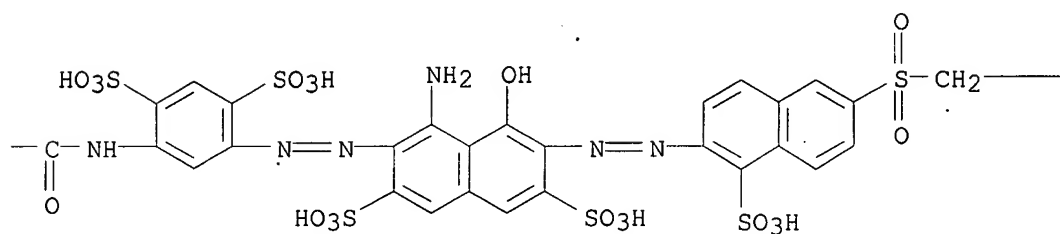
—OSO₃H

RN 179536-39-1 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[5-[[4-[[1-amino-8-hydroxy-3,6-disulfo-7-[[1-sulfo-6-[[2-(sulfooxy)ethyl]sulfonyl]-2-naphthalenyl]azo]-2-naphthalenyl]azo]benzoyl]amino]-2,4-disulfophenyl]azo]-5-hydroxy-6-[[1-sulfo-6-[[2-(sulfooxy)ethyl]sulfonyl]-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)

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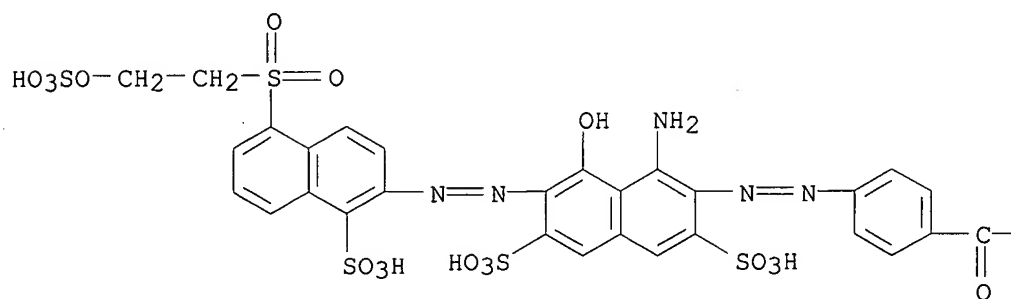


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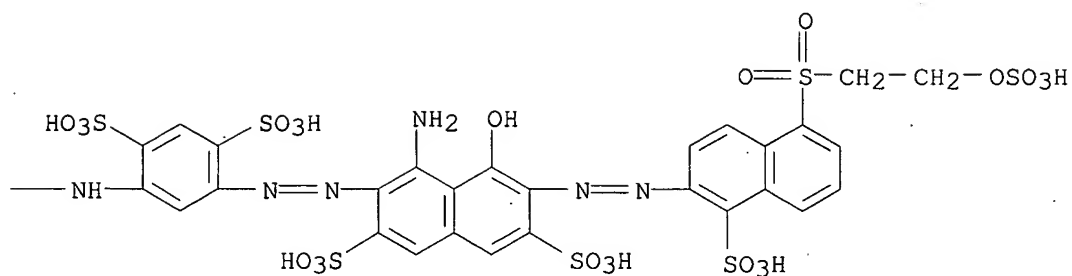
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RN 179536-40-4 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[5-[[4-[[1-amino-8-hydroxy-3,6-disulfo-7-[[1-sulfo-5-[[2-(sulfooxy)ethyl]sulfonyl]-2-naphthalenyl]azo]-2-naphthalenyl]azo]benzoyl]amino]-2,4-disulfophenyl]azo]-5-hydroxy-6-[[1-sulfo-5-[[2-(sulfooxy)ethyl]sulfonyl]-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)

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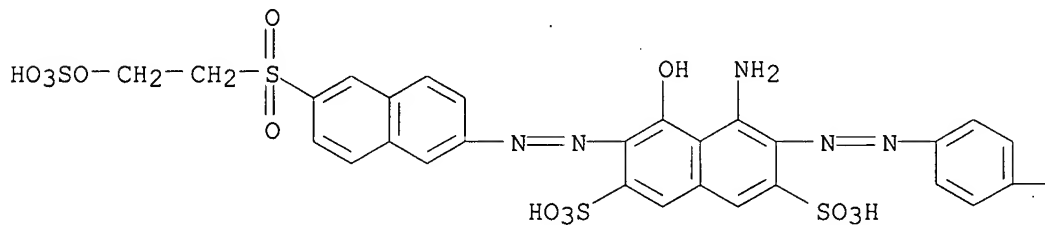
PAGE 1-B



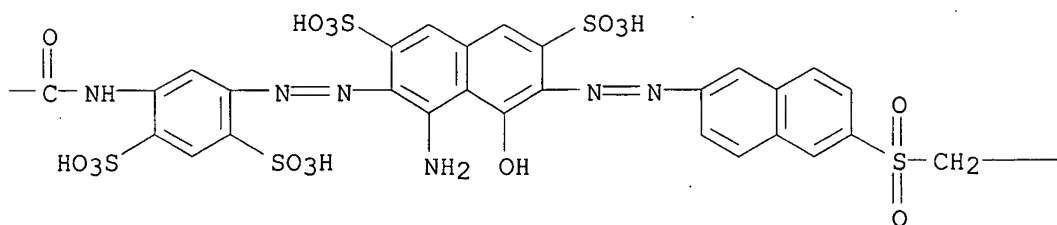
RN 179536-41-5 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[5-[[4-[[1-amino-8-hydroxy-3,6-disulfo-7-[[6-[[2-(sulfoxy)ethyl]sulfonyl]-2-naphthalenyl]azo]-2-naphthalenyl]azo]benzoyl]amino]-2,4-disulfophenyl]azo]-5-hydroxy-6-[[6-[[2-(sulfoxy)ethyl]sulfonyl]-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)

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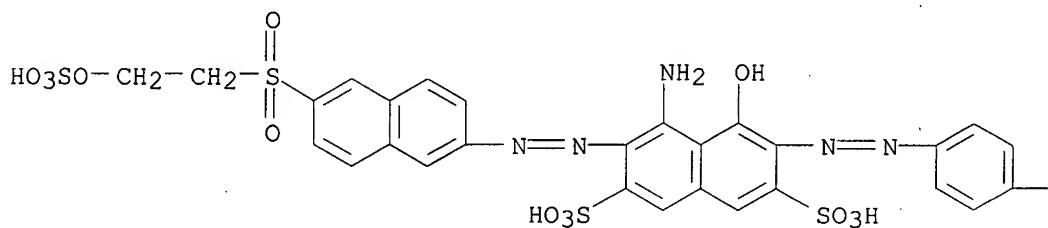
PAGE 1-C

—CH₂—OSO₃H

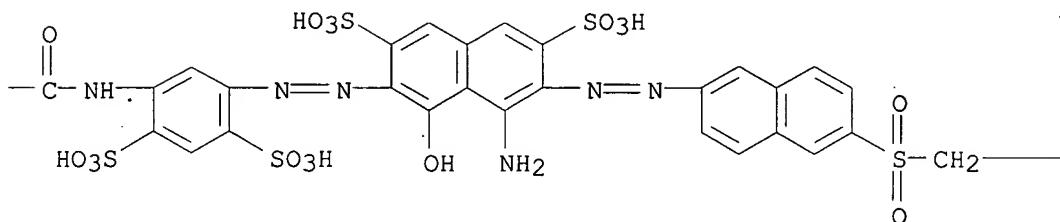
RN 179536-42-6 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-[[8-amino-1-hydroxy-3,6-disulfo-7-[[6-[[2-(sulfooxy)ethyl]sulfonyl]-2-naphthalenyl]azo]-2-naphthalenyl]azo]benzoyl]amino]-2,4-disulfophenyl]azo]-5-hydroxy-3-[[6-[[2-(sulfooxy)ethyl]sulfonyl]-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)

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—CH₂—OSO₃H

L59 ANSWER 6 OF 14 HCA COPYRIGHT 2003 ACS

124:10880 Correction of: 122:268150 Fiber-reactive dyes, their manufacture, and dyeing and printing using them. Deitz, Rolf; Tzikas, Athanassions; Herzig, Paul (Ciba-Geigy AG, Switz.). Jpn. Kokai Tokkyo Koho JP 07003175 A2 19950106 Heisei, 61 pp: (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1994-125844 19940517. PRIORITY: CH 1993-1493 19930517; CH 1993-2598 19930901.

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The dyes have the general formula I [D = sulfo-contg. chromophore; R, R1 = H, (un)substituted C1-4 alkyl; each R2 = SO₃H, CH₂SO₃H, OH, CO₂H, halo, CN, CF₃, SO₂NH₂, C2-4 acylamino, NHCONH₂, C1-4 alkyl, (un)substituted C1-4 alkoxy; T = diazo or coupling component residue; X = F, Cl, Br, 3-carboxy-1-pyridinio, 3-carbamoyl-1-pyridinio; D and/or D1 contains a SO₂CH:CH₂ or precursor group]. II (R3 = NH₂) was diazotized and coupled with Q1H to give II (R3 = N:NQ1), fast navy blue on cotton.

IT 162093-85-8P 162647-92-9P 162647-93-0P
162647-94-1P 162647-95-2P 162647-96-3P
162647-97-4P 162647-98-5P 162648-00-2P
162648-11-5P

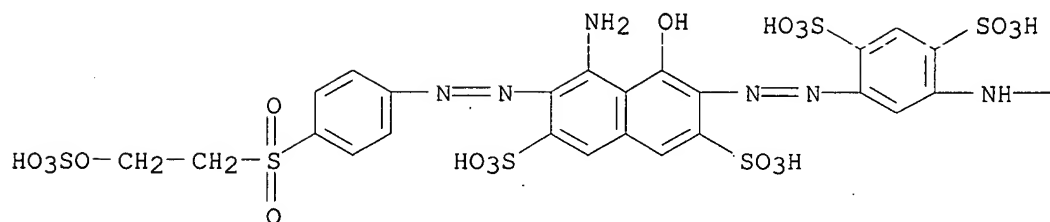
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(blue; prepn. of fiber-reactive dyes for cellulosic fibers)

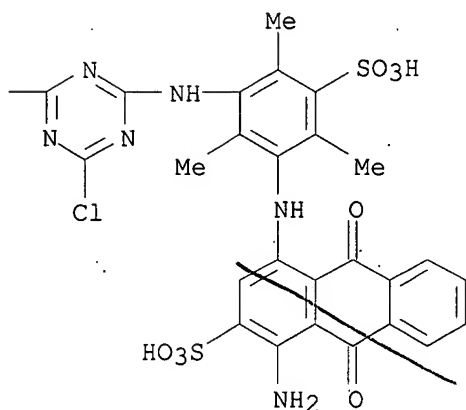
RN 162093-85-8 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-[[3-[(4-amino-9,10-dihydro-9,10-dioxo-3-sulfo-1-anthracenyl)amino]-2,4,6-trimethyl-5-sulfophenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]-2,4-disulfophenyl]azo]-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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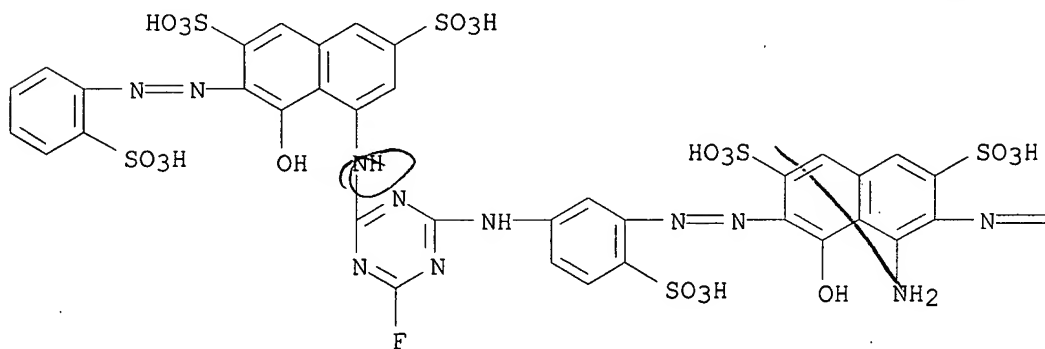
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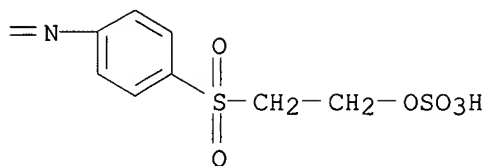
RN 162647-92-9 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-fluoro-6-[[8-hydroxy-3,6-disulfo-7-[(2-sulfophenyl)azo]-1-naphthalenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-5-hydroxy-3-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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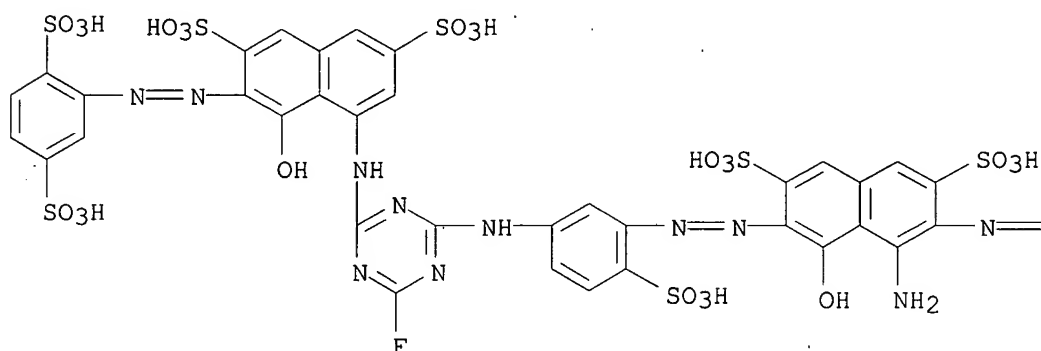


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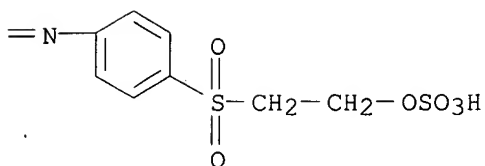


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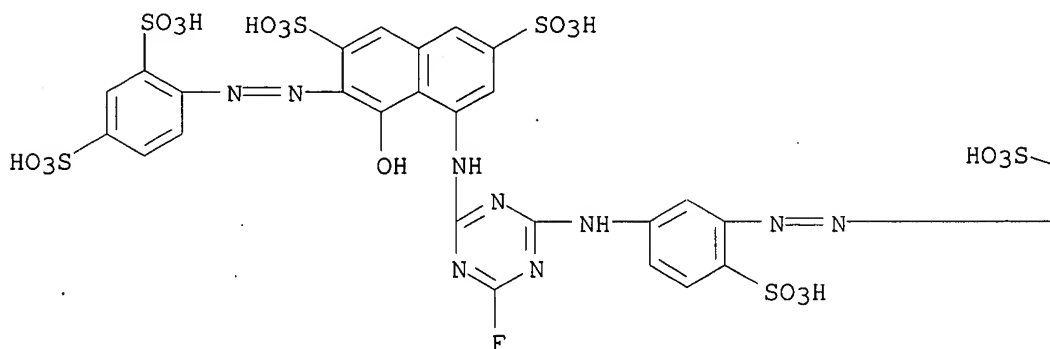
John Calve, EIC - 1700

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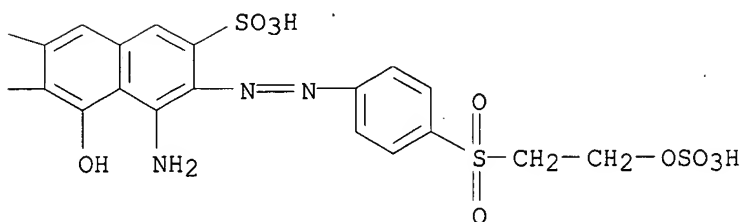
703-308-4139

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-[[7-[(2,4-disulfophenyl)azo]-8-hydroxy-3,6-disulfo-1-naphthalenyl]amino]-6-fluoro-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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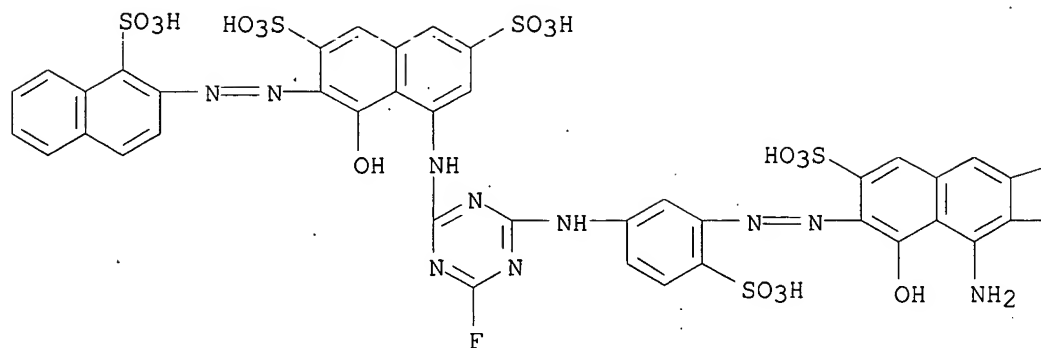
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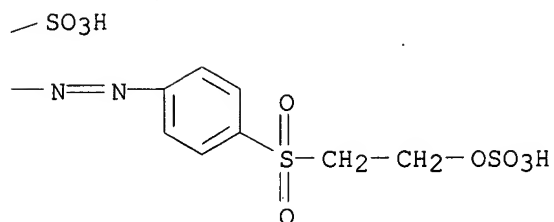
RN 162647-95-2 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-fluoro-6-[[8-hydroxy-3,6-disulfo-7-[(1-sulfo-2-naphthalenyl)azo]-1-naphthalenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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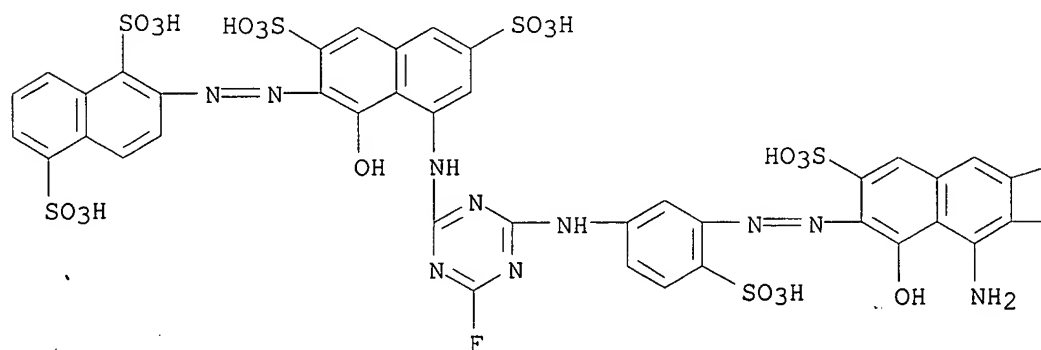
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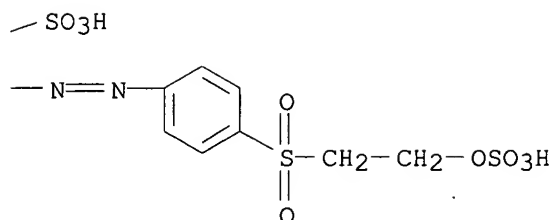
RN 162647-96-3. HCA

1,5-Naphthalenedisulfonic acid, 2-[[[8-[[4-[[3-[[8-amino-1-hydroxy-3,6-disulfo-7-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-2-naphthalenyl]azo]-4-sulphophenyl]amino]-6-fluoro-1,3,5-triazin-2-yl]amino]-1-hydroxy-3,6-disulfo-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)

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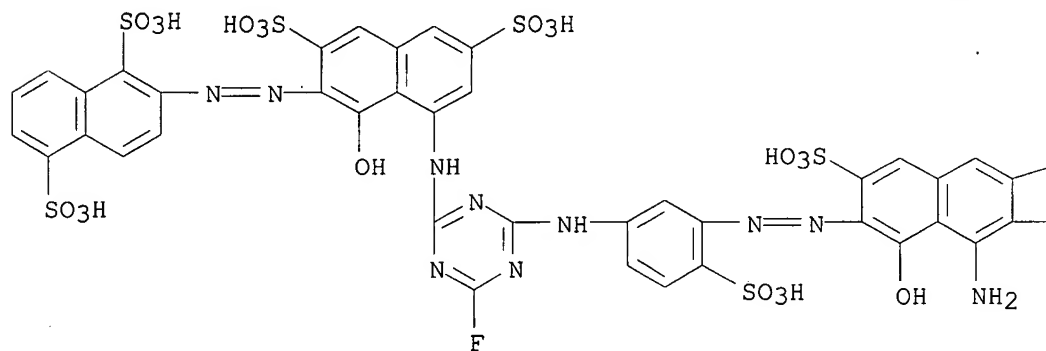


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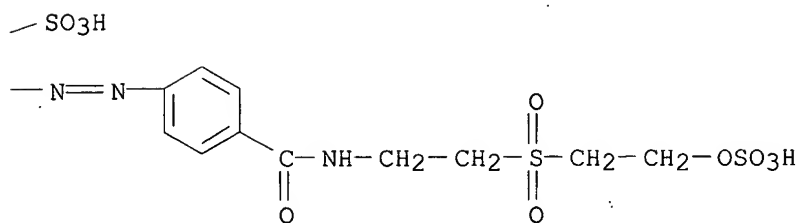


RN 162647-97-4 HCA
 CN 1,5-Naphthalenedisulfonic acid, 2-[[8-[[4-[[3-[[8-amino-1-hydroxy-3,6-disulfo-7-[[4-[[[2-[[2-(sulfooxy)ethyl]sulfonyl]ethyl]amino]carbonyl]phenyl]azo]-2-naphthalenyl]azo]-4-sulfophenyl]amino]-6-fluoro-1,3,5-triazin-2-yl]amino]-1-hydroxy-3,6-disulfo-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)

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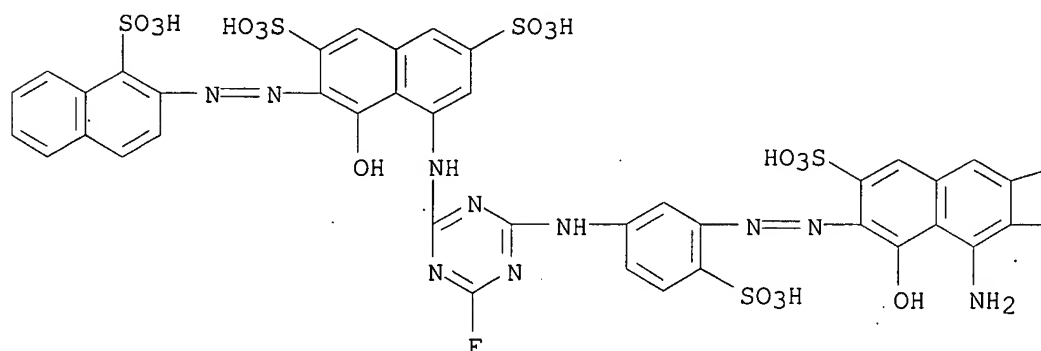


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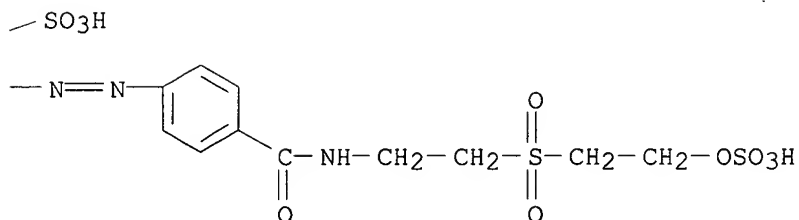


RN 162647-98-5 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-fluoro-6-[[8-hydroxy-3,6-disulfo-7-[(1-sulfo-2-naphthalenyl)azo]-1-naphthalenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-5-hydroxy-3-[[4-[[[2-[[2-(sulfooxy)ethyl]sulfonyl]ethyl]amino]carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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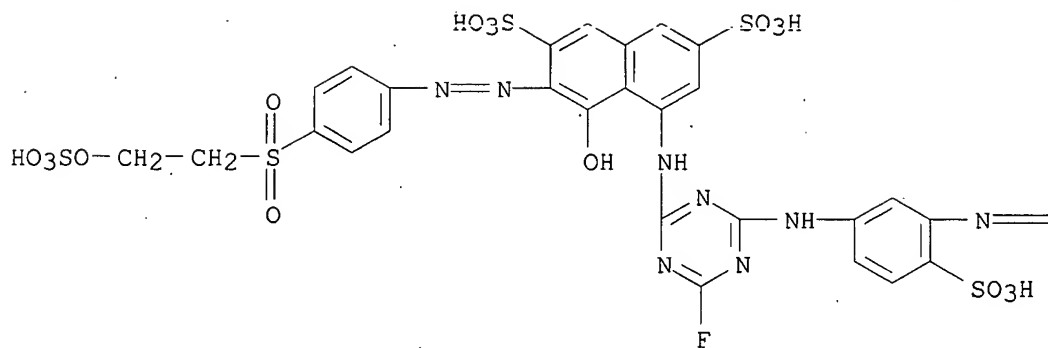


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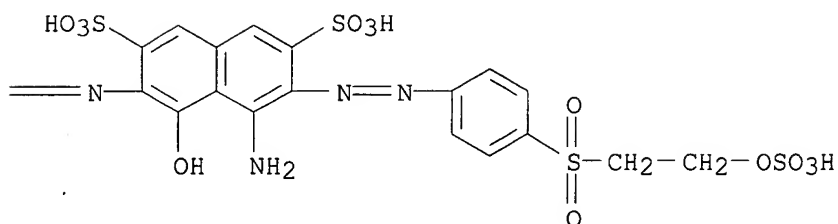


RN 162648-00-2 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-fluoro-6-[[8-hydroxy-3,6-disulfo-7-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-1-naphthalenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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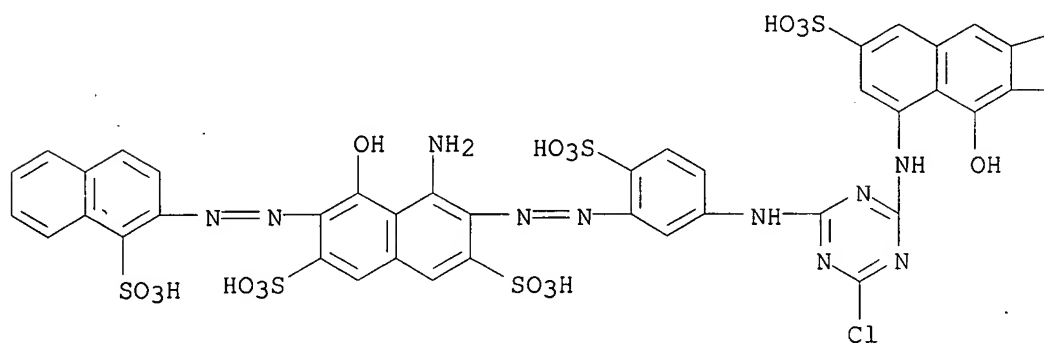
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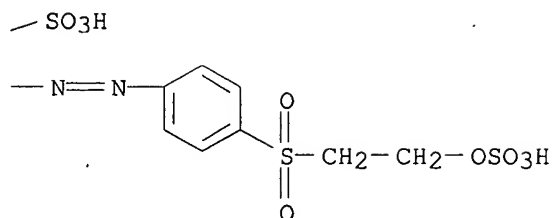
RN 162648-11-5 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[5-[[4-chloro-6-[[8-hydroxy-3,6-disulfo-7-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-1-naphthalenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-5-hydroxy-6-[(1-sulfo-2-naphthalenyl)azo]- (9CI) (CA INDEX NAME)

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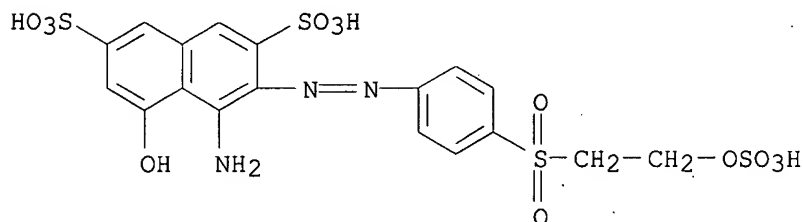


IT 82572-37-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling component; prepn. of fiber-reactive dyes for cellulosic fibers)

RN 82572-37-0 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

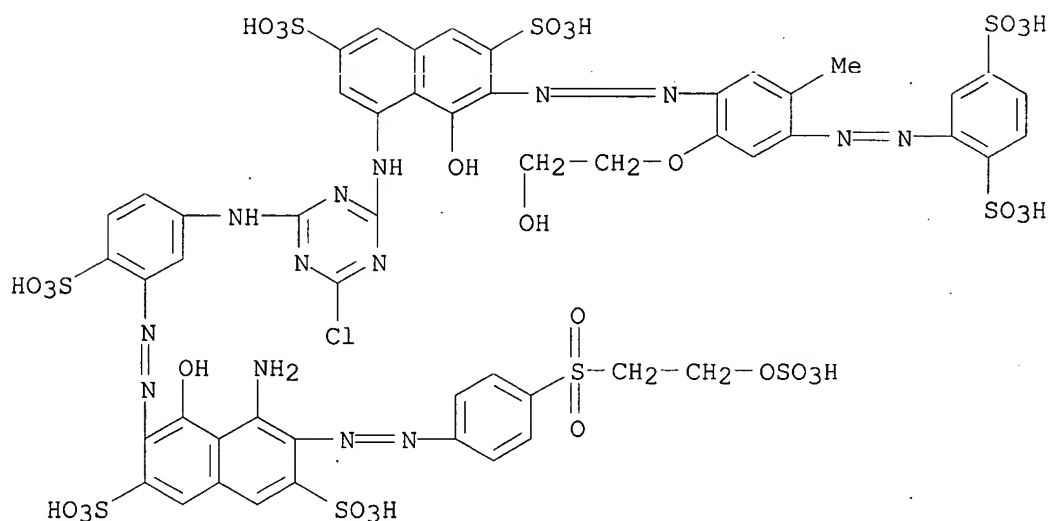


IT 162093-84-7P 162647-99-6P 162648-01-3P
162648-10-4P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(navy blue; prepn. of fiber-reactive dyes for cellulosic fibers)

RN 162093-84-7 HCA

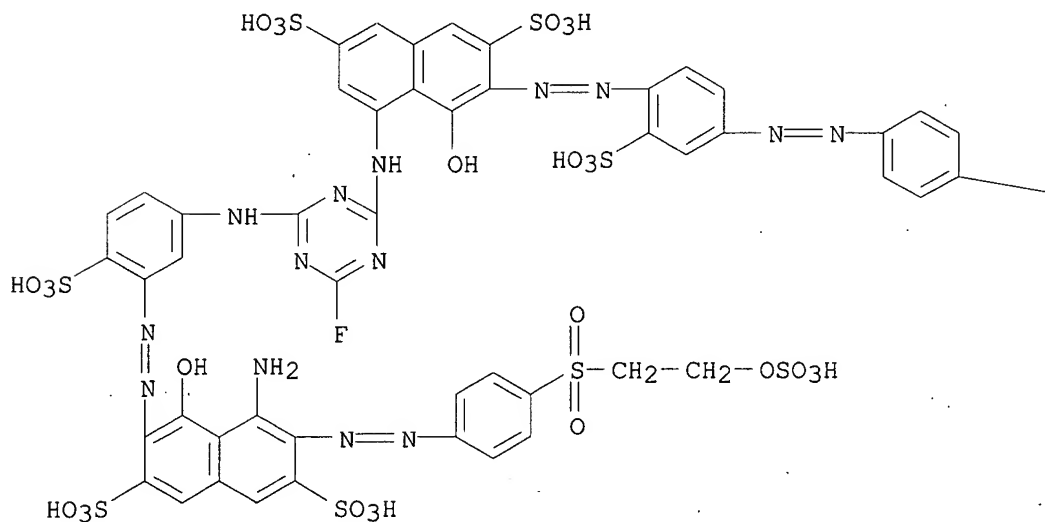
CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-[[7-[[4-[(2,5-disulfophenyl)azo]-2-(2-hydroxyethoxy)-5-methylphenyl]azo]-8-hydroxy-3,6-disulfo-1-naphthalenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI). (CA INDEX NAME)



RN 162647-99-6 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-fluoro-6-[[8-hydroxy-3,6-disulfo-7-[[2-sulfo-4-[(4-sulphophenyl)azo]phenyl]azo]-1-naphthalenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulphophenyl]azo]-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo] - (9CI) (CA INDEX NAME)

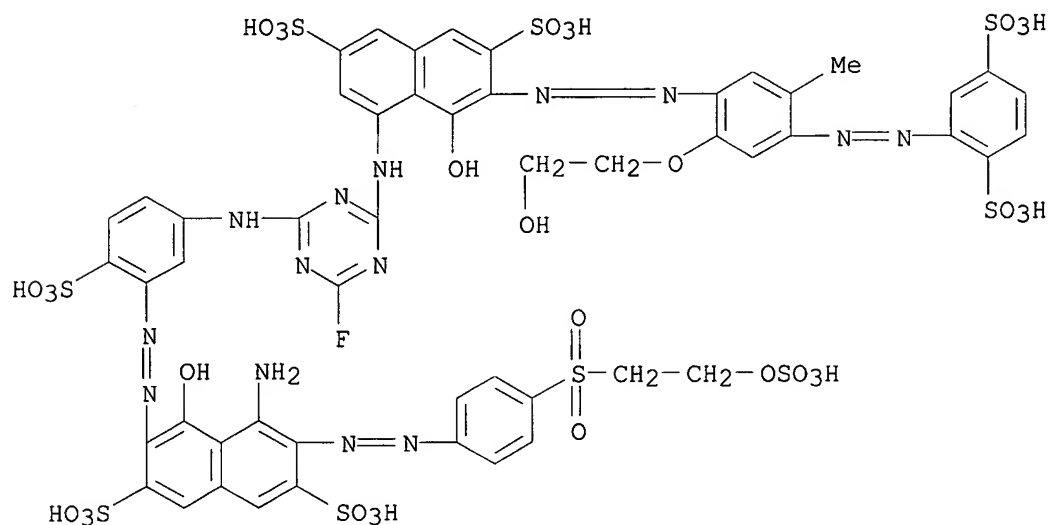
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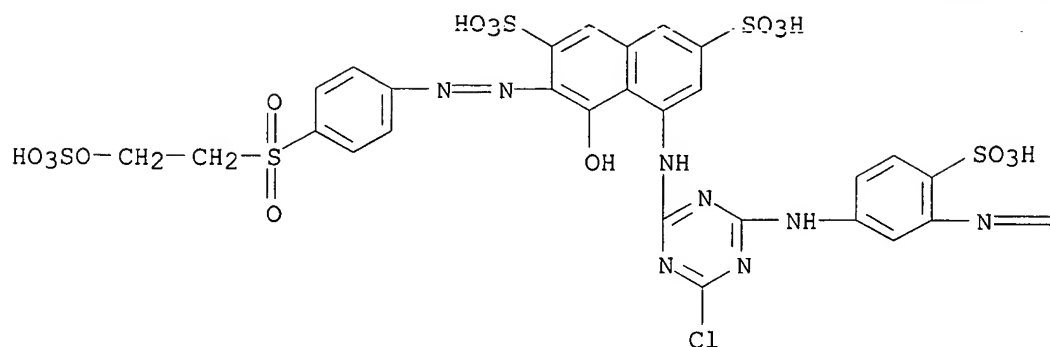
—SO₃H

RN 162648-01-3 HCA
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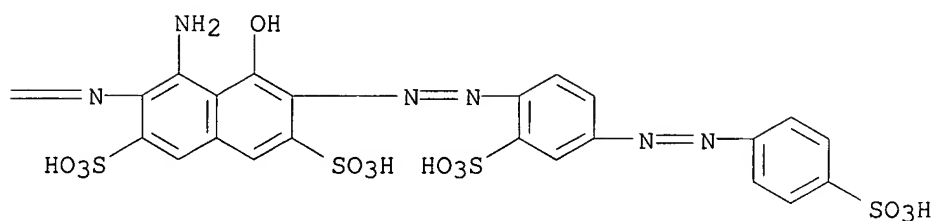


RN 162648-10-4 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[5-[[4-chloro-6-[[8-hydroxy-3,6-disulfo-7-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-1-naphthalenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-5-hydroxy-6-[[2-sulfo-4-[(4-sulfophenyl)azo]phenyl]azo]-(9CI) (CA INDEX NAME)

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IT 162647-89-4P 162647-90-7P 162647-91-8P

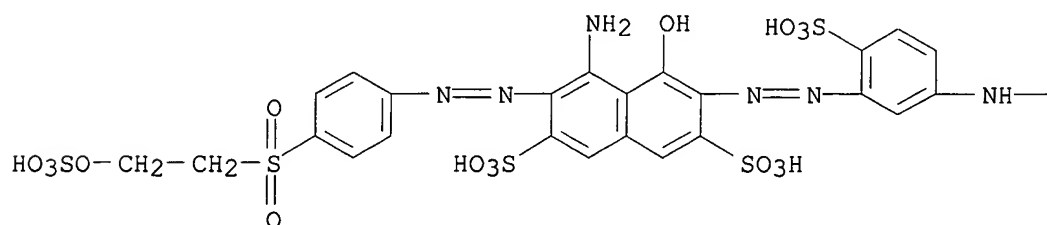
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(prepn. of fiber-reactive dyes for cellulosic fibers)

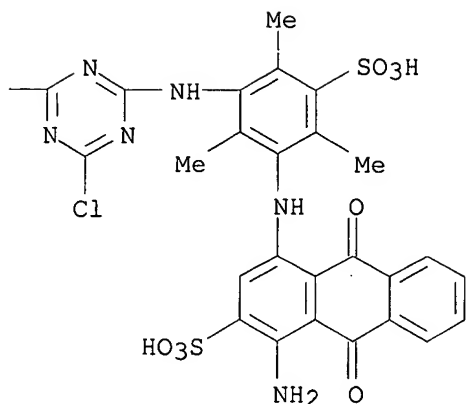
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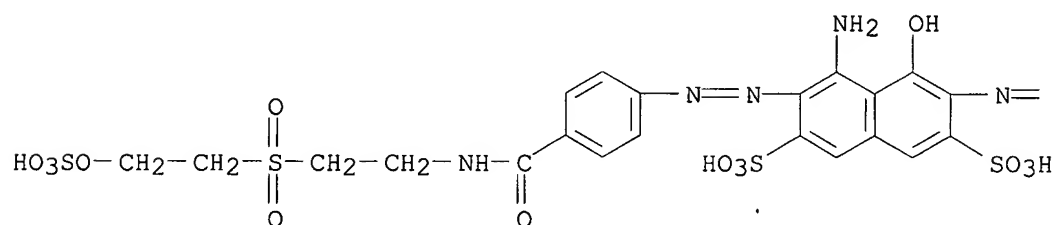
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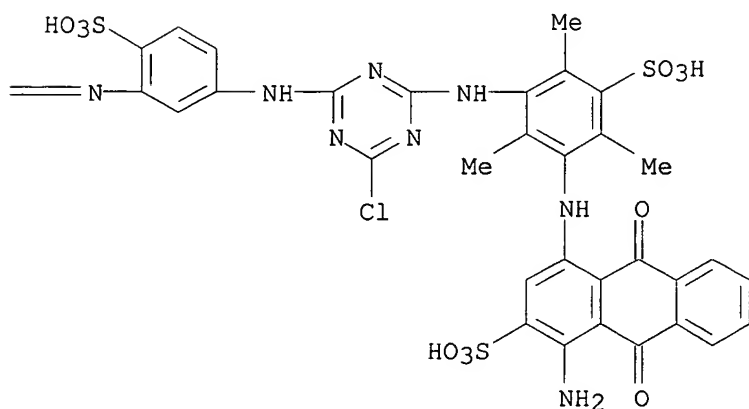
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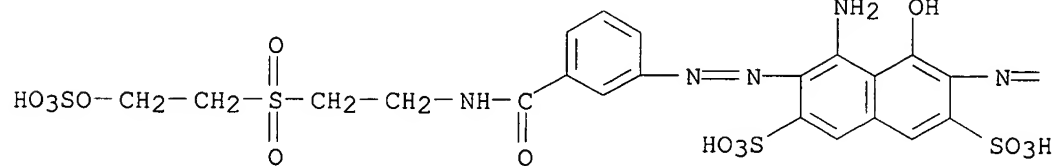


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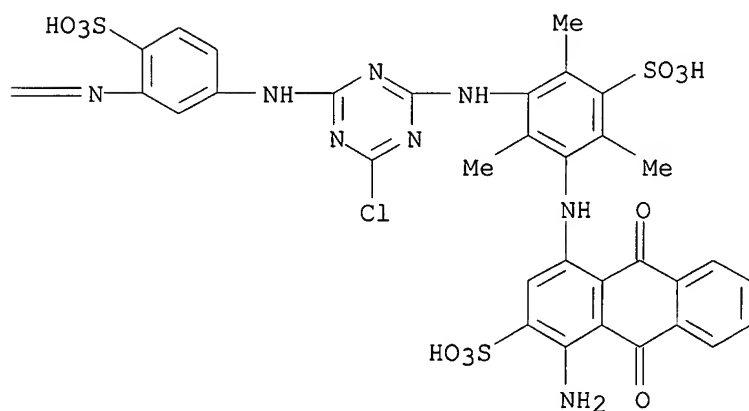
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hydroxy-3-[[[3-[[[2-[[2-(sulfooxy)ethyl]sulfonyl]ethyl]amino]carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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IT 162093-87-0

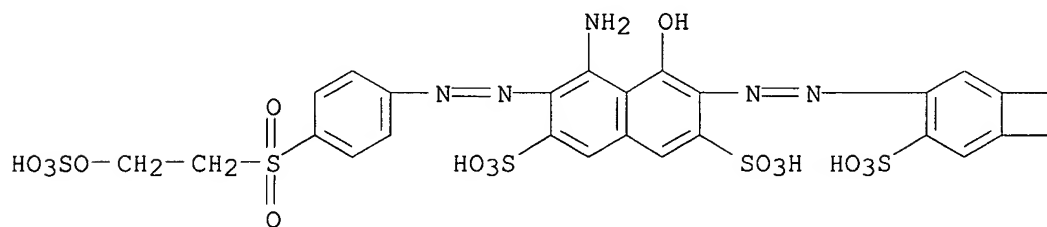
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(prepn. of fiber-reactive dyes for cellulosic fibers)

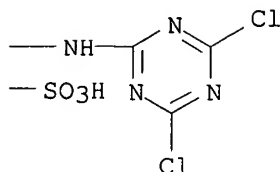
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CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4,6-dichloro-1,3,5-triazin-2-yl]amino]-2,4-disulfophenyl]azo]-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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L59 ANSWER 7 OF 14 HCA COPYRIGHT 2003 ACS

122:268150 Fiber-reactive dyes, manufacture thereof, and dyeing and printing using the same. (Ciba-Geigy A.-G., Switz.). Jpn. Kokai Tokkyo Koho JP 07003175 A2 **19950106** Heisei, 61 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-125844 19940517. PRIORITY: CH 1993-14 19930517; CH 1993-2598 19930901.

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title dyes have the general formula I [D = sulfo group-contg. chromophore group; D1 = monoazo chromophore group; X = F, Cl, Br, 3-carboxy-1-pyridinyl, 3-carbamoyl-1-pyridinyl; R, R1 = H, (un)substituted C1-4 alkyl]. II (R3 = NH2) was diazotized and coupled with 1-amino-2-[4-(2-sulfatoethylsulfonyl)phenylazo]-8-hydroxynaphthalene-3,6-disulfonic acid to give II (R = Q1), fast navy blue on cotton.

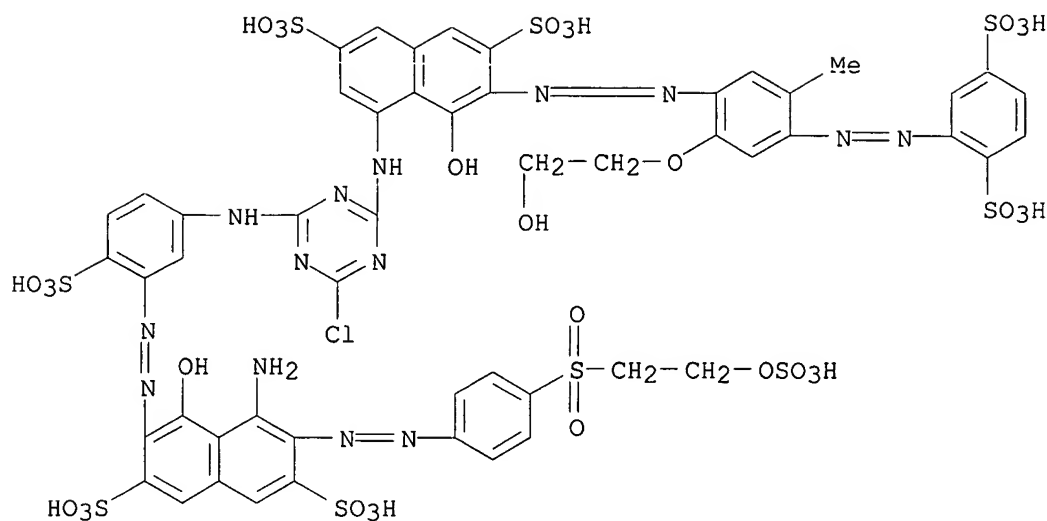
IT **162093-84-7P 162093-85-8P**

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(fiber-reactive dyes, manuf. thereof, and dyeing and printing using the same)

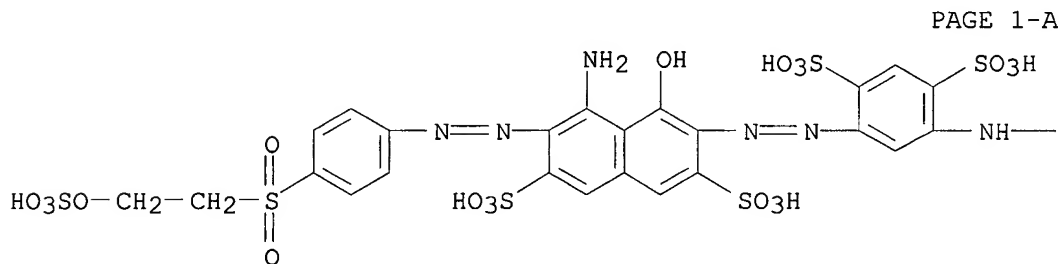
RN 162093-84-7 HCA

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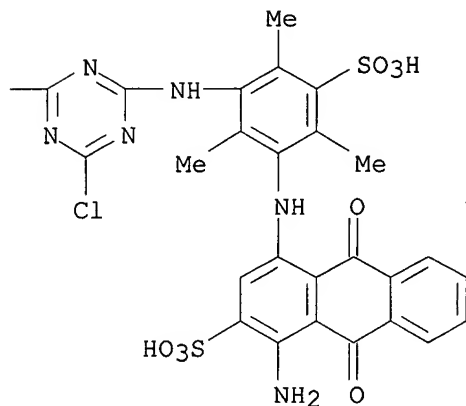


RN 162093-85-8 HCA

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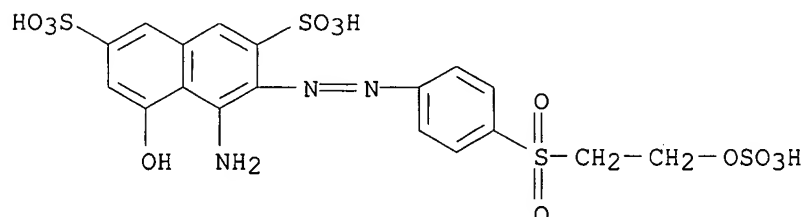


IT 82572-37-0 162093-87-0

RL: RCT (Reactant); RACT (Reactant or reagent)
 (fiber-reactive dyes, manuf. thereof, and dyeing and printing using the same)

RN 82572-37-0 HCA

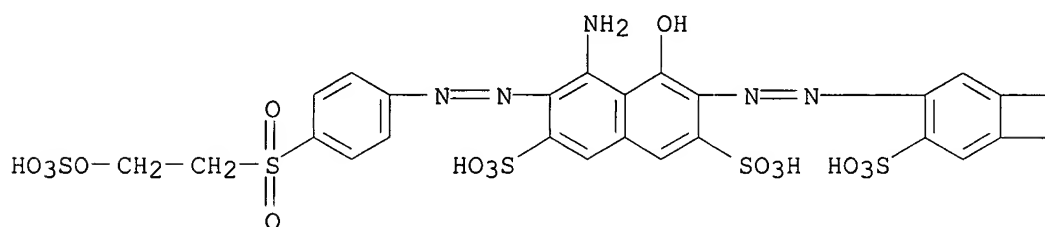
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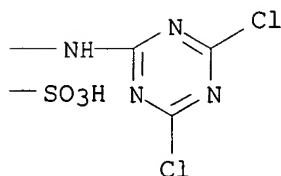
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CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4,6-dichloro-1,3,5-triazin-2-yl)amino]-2,4-disulphophenyl]azo]-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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IT 162647-89-4 162647-90-7 162647-91-8

162647-92-9 162647-93-0 162647-94-1

162647-95-2 162647-96-3 162647-97-4

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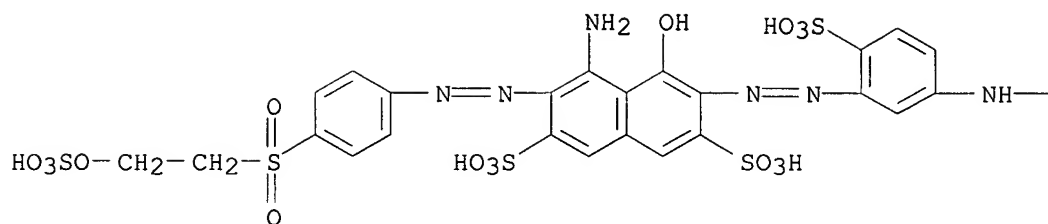
RL: TEM (Technical or engineered material use); USES (Uses)
 (fiber-reactive dyes, manuf. thereof, and dyeing and printing using the same)

RN 162647-89-4 HCA

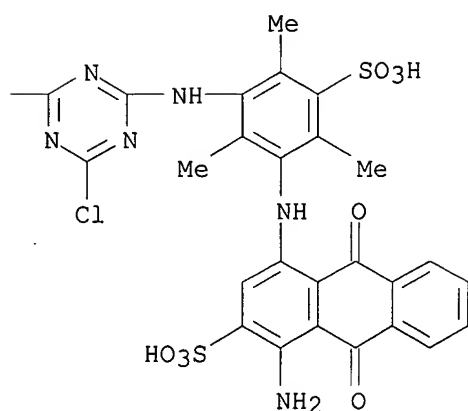
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(NAME)

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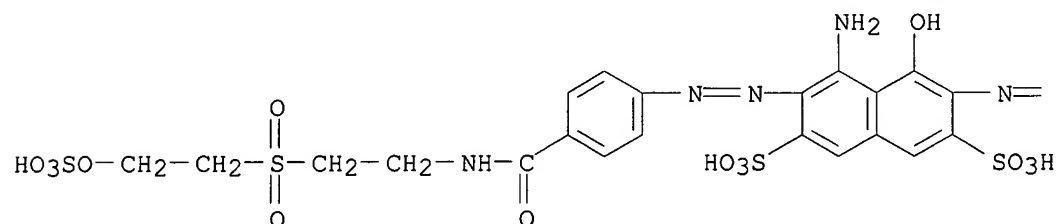


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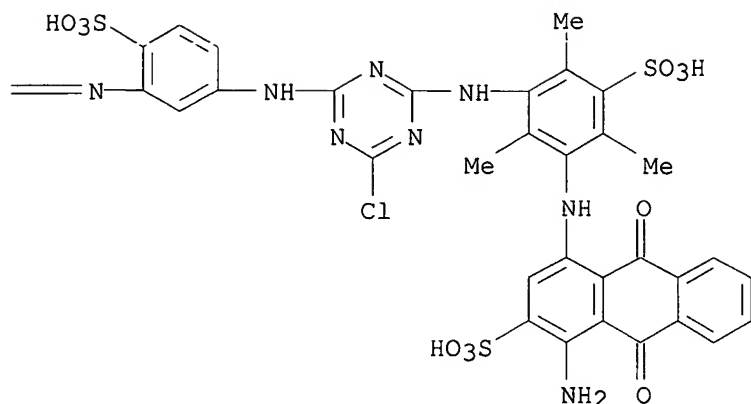


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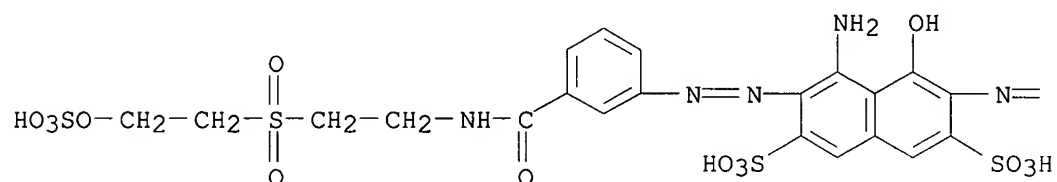
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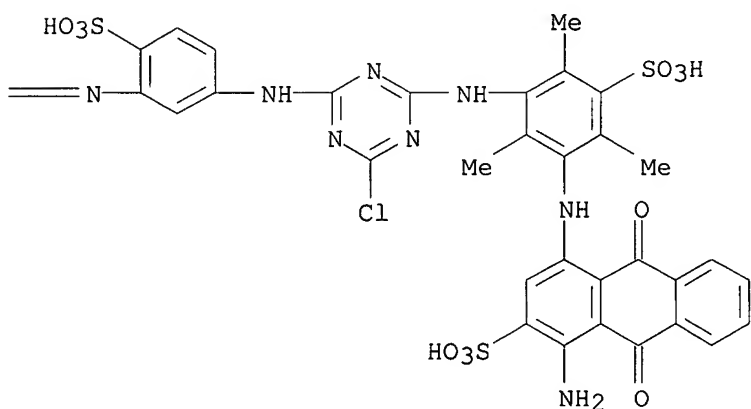
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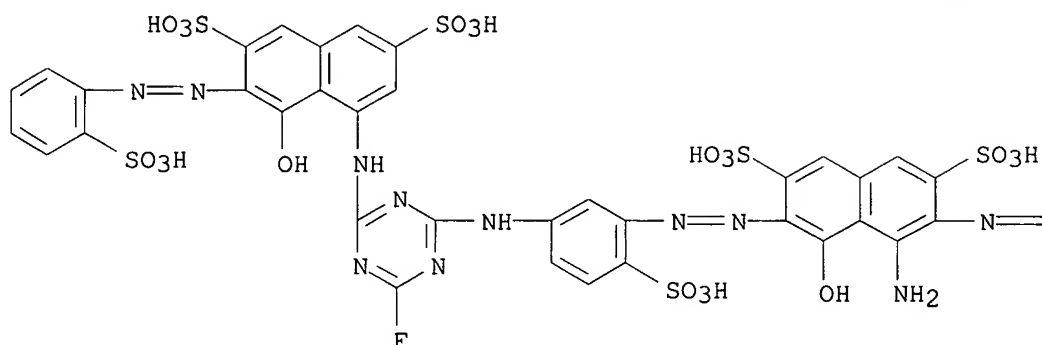


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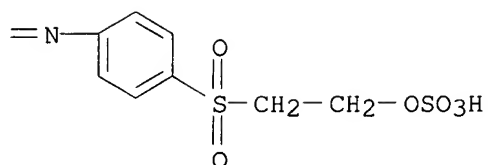
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(sulfooxy)ethyl)sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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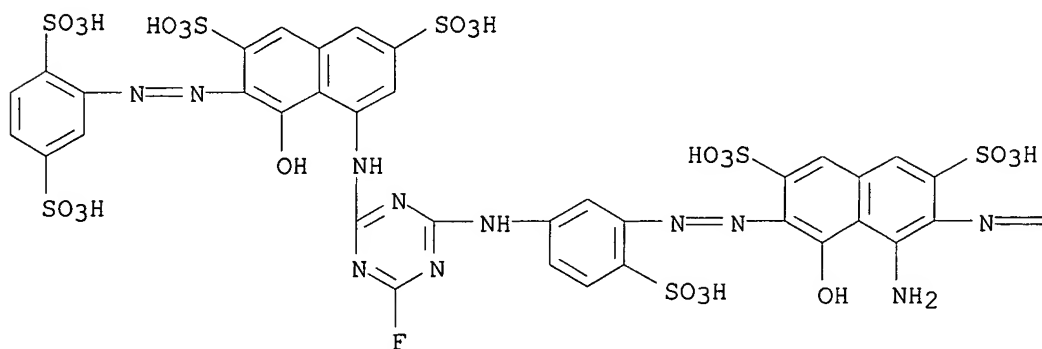
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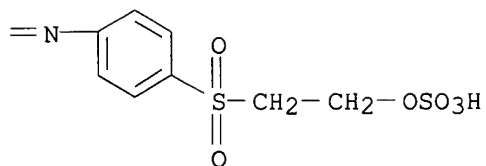
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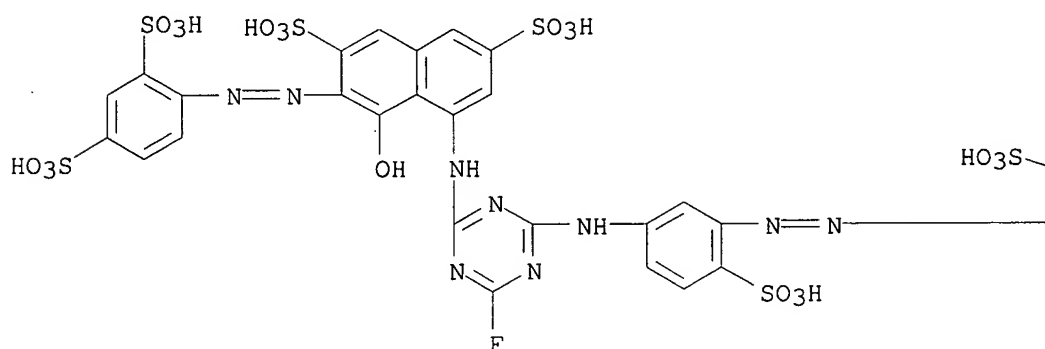


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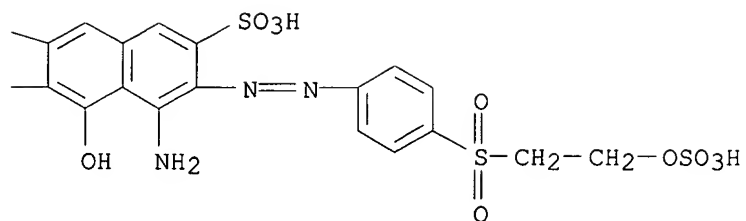


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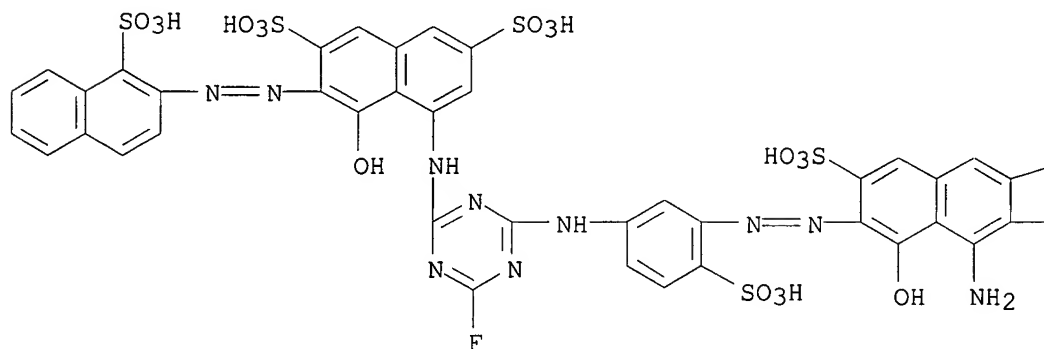
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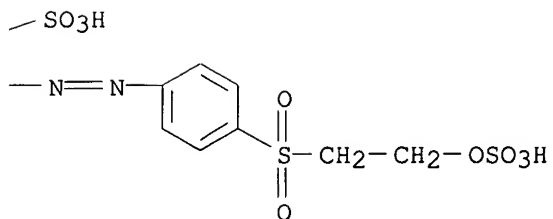
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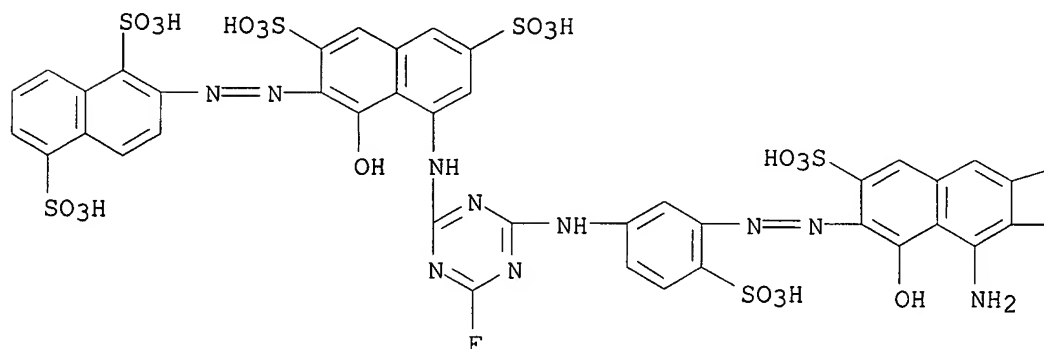
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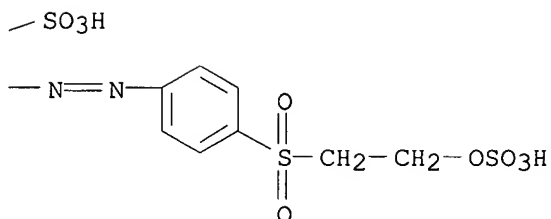
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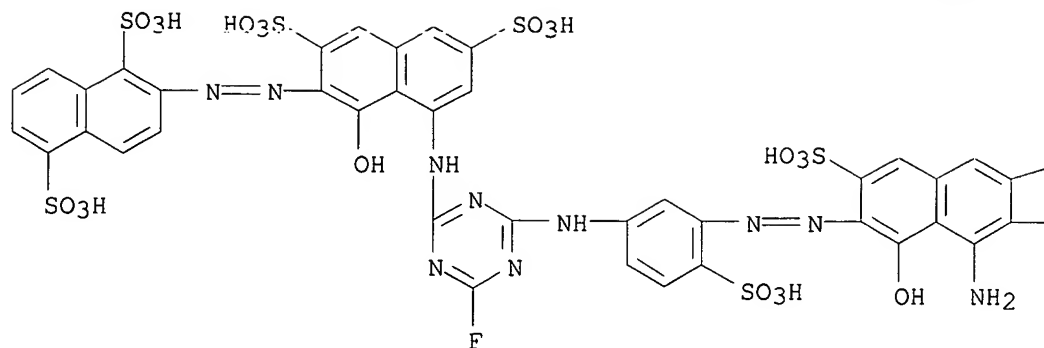
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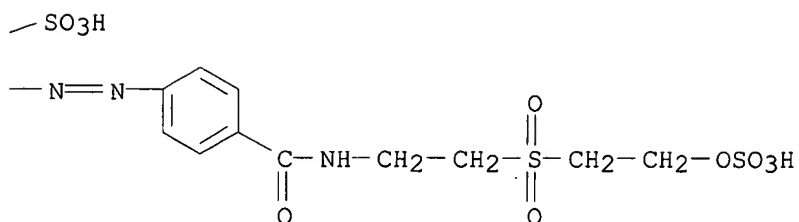
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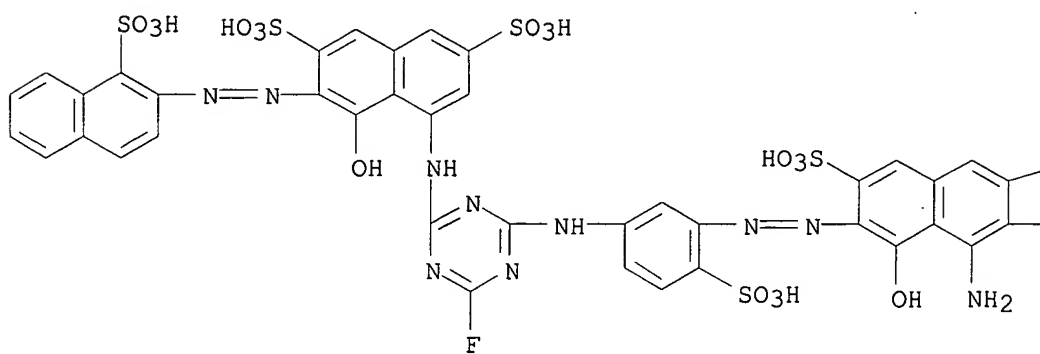


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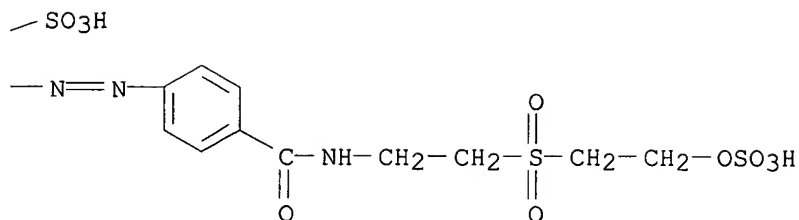


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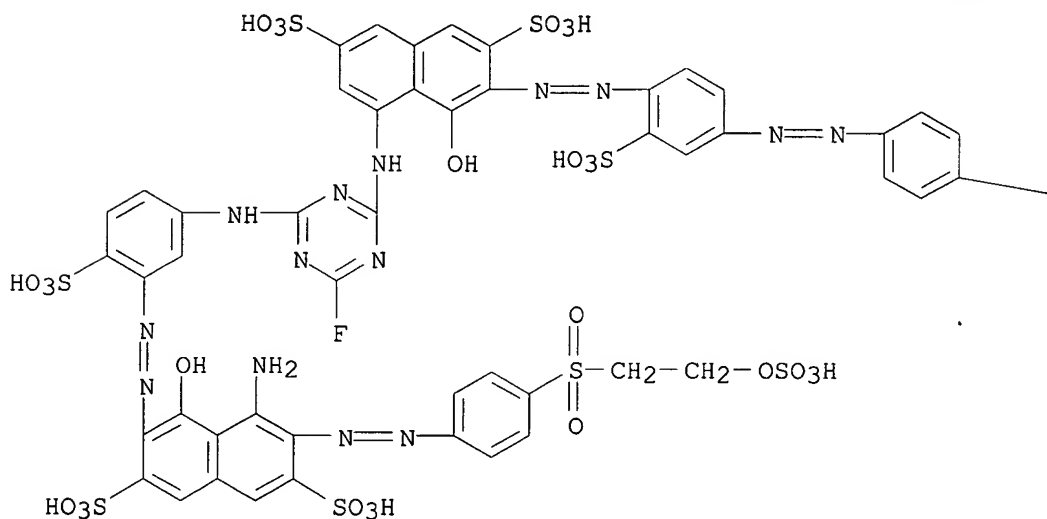
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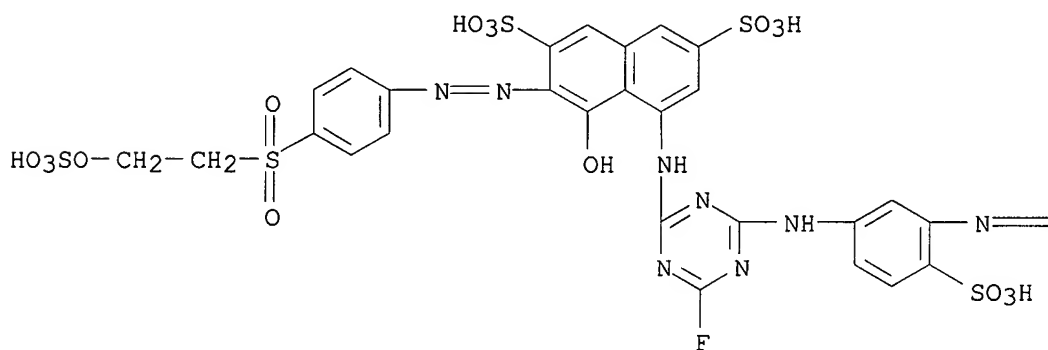


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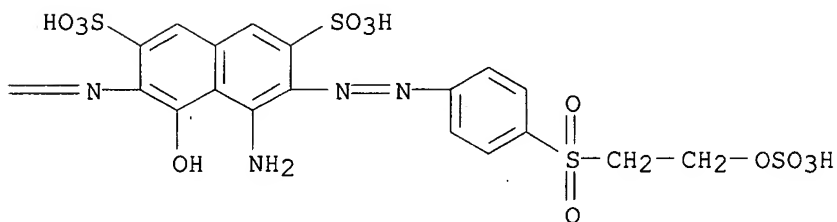
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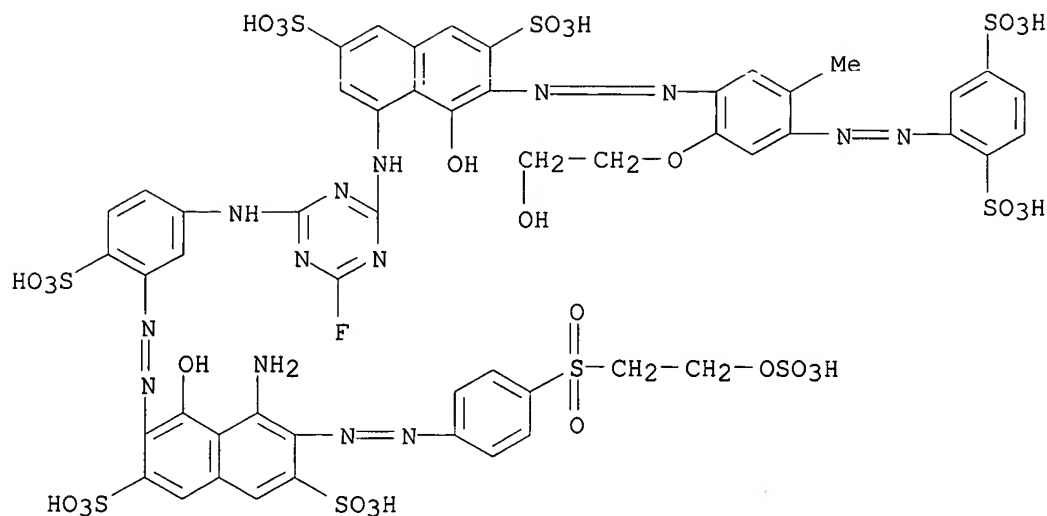
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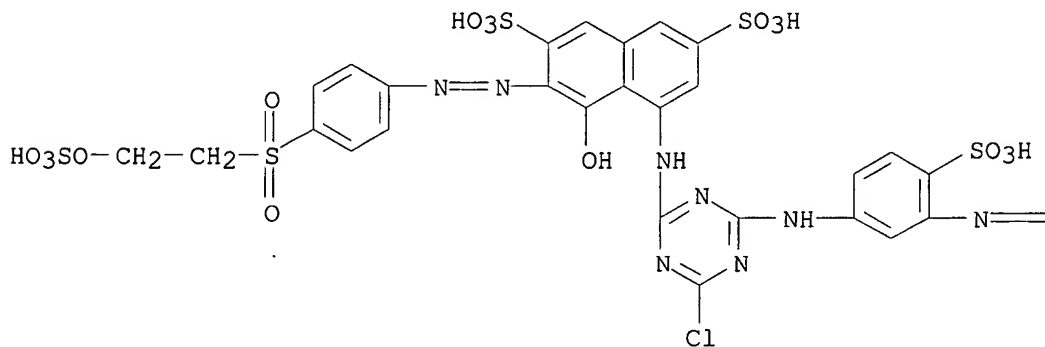


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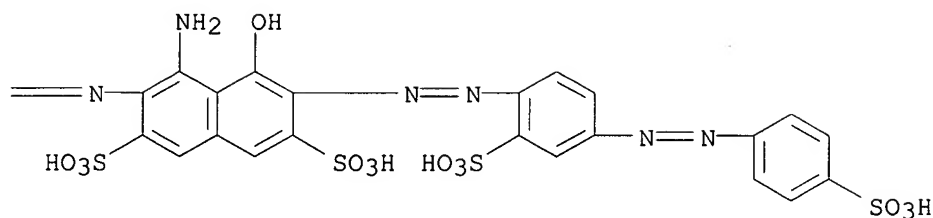


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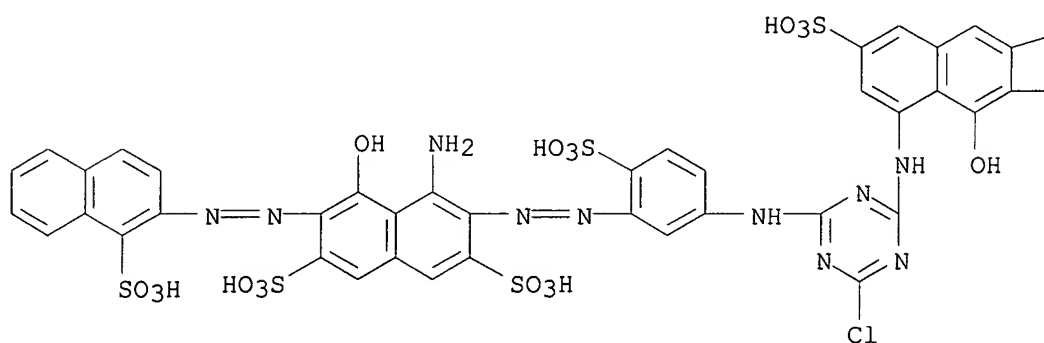


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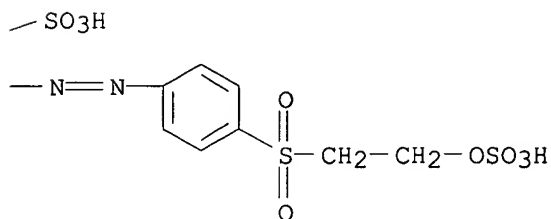


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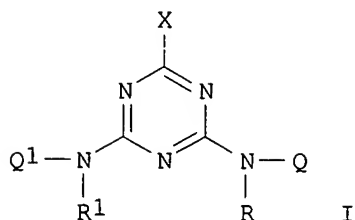


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L59 ANSWER 8 OF 14 HCA COPYRIGHT 2003 ACS
 122:216575 Fiber-reactive dyes, their preparation and use on cellulosic fibers. Deitz, Rolf; Tzikas, Athanassions; Herzig, Paul (Ciba-Geigy A.-G., Switz.). Eur. Pat. Appl. EP 626429 A1 19941130, 65 pp.
 DESIGNATED STATES: R: BE, CH, DE, ES, FR, GB, IT, LI, PT. (German).
 CODEN: EPXXDW. APPLICATION: EP 1994-810275 19940509. PRIORITY: CH 1993-1493 19930517; CH 1993-2598 19930901.

GI



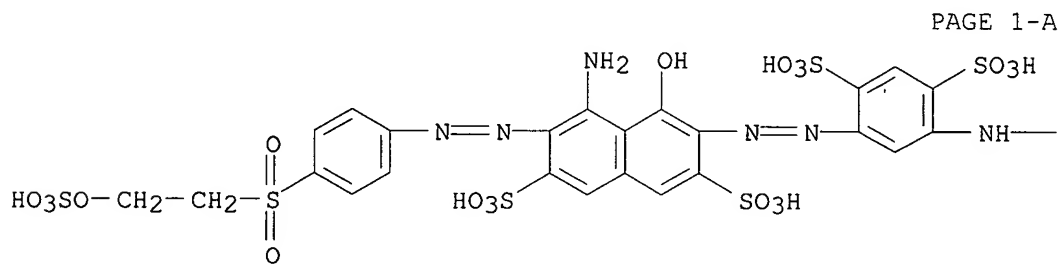
AB The dyes have the structure I [Q = azo, formazan, anthraquinone, triphenyldioxazine, or phthalocyanine dye residue; Q¹ = azo dye residue; Q and/or Q¹ contain(s) a vinyl sulfone or precursor substituent; R, R¹ = H, (un)substituted C1-4-alkyl; NRQ .noteq. NR¹Q¹; X = F, Cl, Br, 3-carboxy-1-pyridinyl, 3-carbamoyl-1-pyridinyl] and give fast shades on cotton.

IT **162093-85-8P**

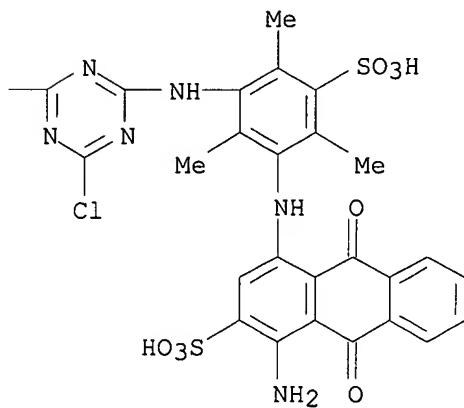
RL: IMF (Industrial manufacture); PREP (Preparation)
(blue; prepn. of multifunctional fiber-reactive dyes for cotton)

RN 162093-85-8 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-[[3-[(4-amino-9,10-dihydro-9,10-dioxo-3-sulfo-1-anthracenyl)amino]-2,4,6-trimethyl-5-sulphophenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]-2,4-disulphophenyl]azo]-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



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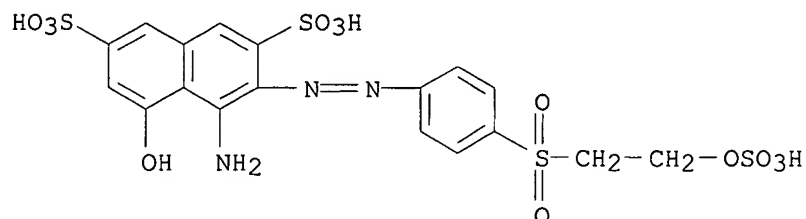


IT 82572-37-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling component; prepn. of multifunctional fiber-reactive dyes for cotton)

RN 82572-37-0 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

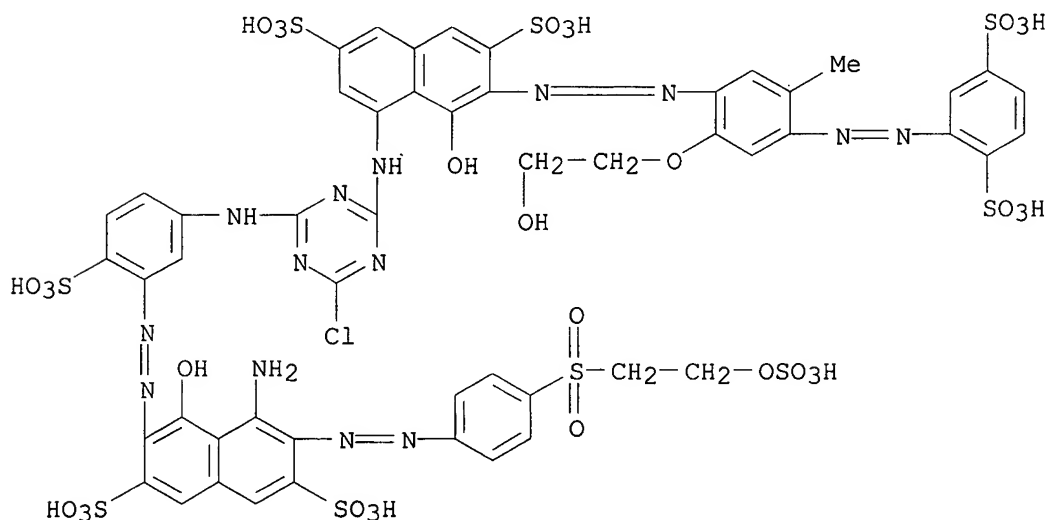


IT 162093-84-7P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(navy blue; prepn. of multifunctional fiber-reactive dyes for cotton)

RN 162093-84-7 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-[[7-[[4-[(2,5-disulfophenyl)azo]-2-(2-hydroxyethoxy)-5-methylphenyl]azo]-8-hydroxy-3,6-disulfo-1-naphthalenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



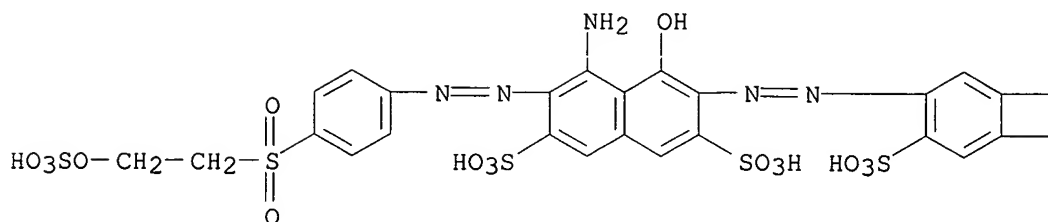
IT 162093-87-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of multifunctional fiber-reactive dyes for cotton)

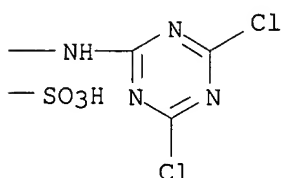
RN 162093-87-0 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4,6-dichloro-1,3,5-triazin-2-yl]amino]-2,4-disulfophenyl]azo]-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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Search U.S. equiv +
Feb 12-14

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111:116823 Halotriazine group-containing bifunctional reactive azo dyes.
Tzikas, Athanassios (Ciba-Geigy A.-G., Switz.). Eur. Pat. Appl. EP 315585
A1 19890510, 58 pp. DESIGNATED STATES: R: BE, CH, DE, ES, FR,
GB, IT, LI. (German). CODEN: EPXXDW. APPLICATION: EP 1988-810633
19880915. PRIORITY: CH 1987-4293 19871103.

GI For diagram(s), see printed CA Issue.

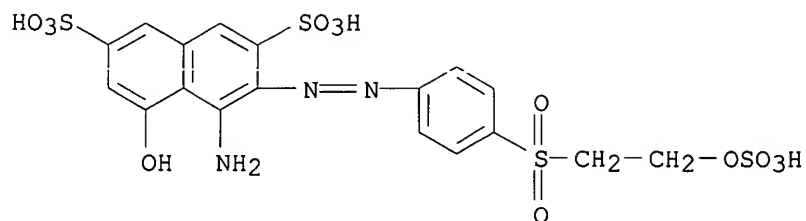
AB The title dyes I [A = R8NC6H3(R9)QCOR10; Q = direct bond, (CH2)n, O(CH2)n;
n = 1-6; R8 = H, (un)substituted C1-4 alkyl; R9 = H, C1-4 alkyl, alkoxy,
halogen, carboxy, sulfo; R10 = substituted fiber reactive
group-substituted aminoalkylene substituents; L = (un)substituted
4-(5-hydroxy-2-pyridonyl), (un)substituted (acylamino)-1-hydroxy-3-sulfo-2-
naphthyl, 8-(acylamino)-1-hydroxy-3, (5 or 6)-disulfo-2-naphthyl,
1-hydroxysulfo-2-naphthyl, 1-hydroxydisulfo-2-naphthyl, (un)substituted
8-amino-1-hydroxy-3(5 or 6)-disulfo-7-(phenylazo)-2-naphthyl; X = F, Cl,
Br, SO3H, C1-4 alkylsulfonyl, PhSO2, carboxypyridinium, (un)substituted
aminosulfophenylene, (un)substituted aminodisulfophenylene,
(un)substituted aminosulfophenylene, Q1, R1 = H, (un)substituted C1-4
alkyl, useful for dyeing or printing of hydroxyl or amide group-contg.
fabrics, are prepd. 1,3-Phenylenediamine-4,6-disulfonic acid was
condensed with cyanuric chloride, the condensate condensed with
m-H2NC6H4CONH(CH2)2SO2(CH2)2OSO3H, and the chlorotriazine intermediate
diazotized and coupled with 3-(aminocarbonyl)-1-ethyl-6-hydroxy-4-methyl-2-
pyridone, forming II, greenish yellow on cellulosic fibers.

IT 82572-37-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with diazotized phenylenediaminedisulfonic acid
fiber-reactive deriv.)

RN 82572-37-0 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[4-[[2-
(sulfoxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

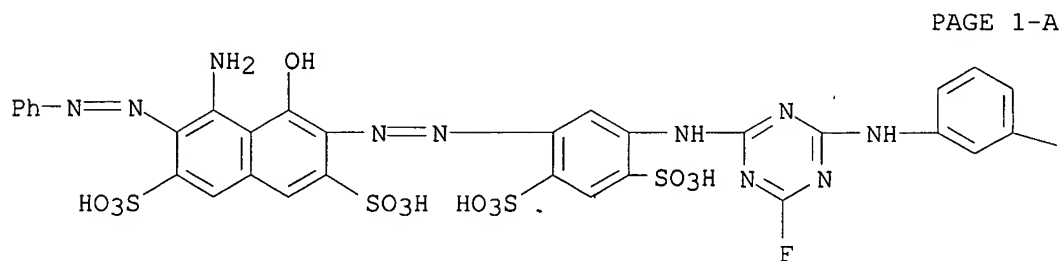


IT 122558-63-8P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye, manuf. of)

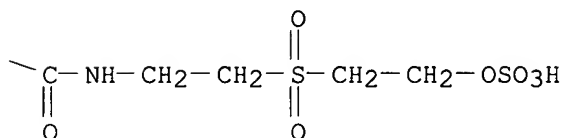
RN 122558-63-8 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-fluoro-6-[[3-[[[2-[[2-(sulfoxy)ethyl]sulfonyl]ethyl]amino]carbonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2,4-disulfophenyl]azo]-5-hydroxy-3-(phenylazo)-(9CI) (CA INDEX NAME)



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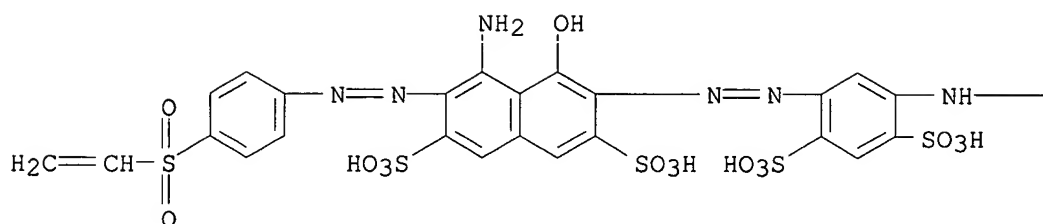
IT 122558-61-6P 122558-62-7P

RL: PREP (Preparation)
(dye, navy blue, manuf. of)

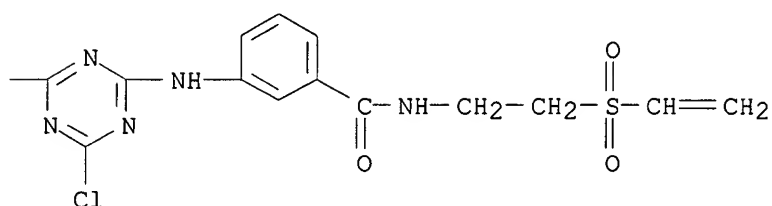
RN 122558-61-6 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-chloro-6-[[3-[[[2-(ethenylsulfonyl)ethyl]amino]carbonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2,4-disulfophenyl]azo]-3-[[4-(ethenylsulfonyl)phenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)

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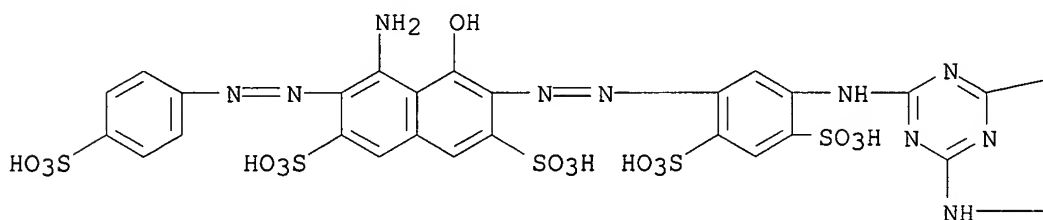
PAGE 1-B



RN 122558-62-7 HCA

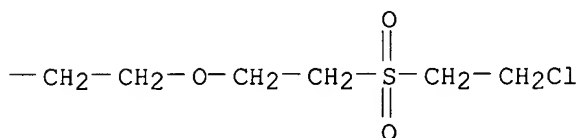
CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-chloro-6-[[2-[2-[(2-chloroethyl)sulfonyl]ethoxy]ethyl]amino]-1,3,5-triazin-2-yl]amino]-2,4-disulfophenyl]azo]-5-hydroxy-3-[(4-sulfophenyl)azo]- (9CI) (CA INDEX NAME)

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—Cl

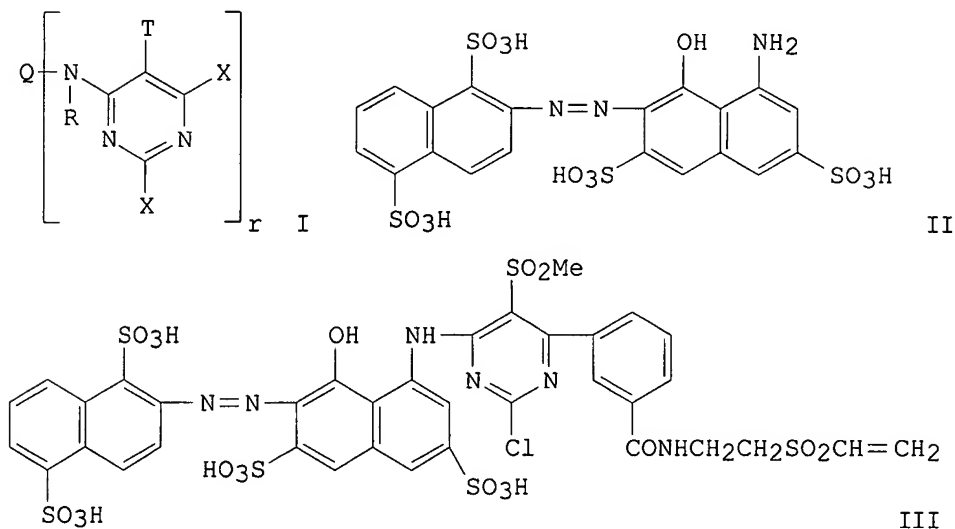


L59 ANSWER 10 OF 14 HCA COPYRIGHT 2003 ACS

111:8882 Bifunctional reactive dyes. Seitz, Karl; Hoegerle, Karl (Ciba-Geigy A.-G., Switz.). Eur. Pat. Appl. EP 285571 A2 19881005, 41 pp.

DESIGNATED STATES: R: BE, CH, DE, FR, GB, IT, LI. (German). CODEN: EPXXDW. APPLICATION: EP 1988-810205 19880328. PRIORITY: CH 1987-1258 19870402; CH 1987-3287 19870827.

GI



AB The title dyes I [Q = chromophore residue; R = (un)substituted C1-4 alkyl, H; T = electroneg. substituent; X = cleavable substituent, N(R1)ACON(G)(CH2)qSO2Z, N(R1)(CH2)mO(CH2)nSO2Z; A = arylene residue; G = H, (un)substituted C1-4 alkyl, (CH2)qSO2Z; R = H, (un)substituted C1-4 alkyl; Z = CH:CH2, CH2CH2Y; Y = alkali-cleavable substituent; m, n, q = 2-6 integer; r = 1,2; such that one X must be a cleavable substituent], which have a high color yield and are also useful for printing textiles, are prepd. II was condensed with 2,4,6-trichloro-5-(methylsulfonyl)pyrimidine, the monocondensate condensed with 1-amino-3[.beta.-(.beta.'-chloroethylsulfonyl)ethylaminocarbonyl]benzene hydrochloride, and the intermediate hydrolyzed with NaOH soln., producing III, .lambda.max 530 nm, which dyed cotton in a fast bluish-red shade.

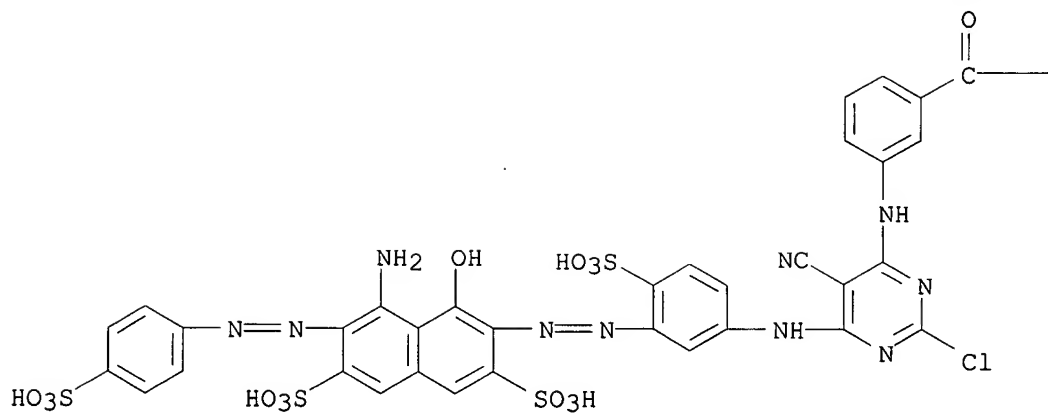
IT 119842-06-7P

RL: PREP (Preparation)
(manuf. of, as navy blue reactive dye)

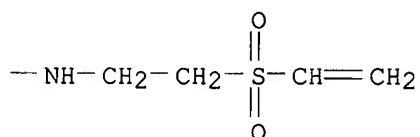
RN 119842-06-7 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[2-chloro-5-cyano-6-[[3-[[[2-(ethenylsulfonyl)ethyl]amino]carbonyl]phenyl]amino]-4-pyrimidinyl]amino]-2-sulfophenyl]azo]-5-hydroxy-3-[(4-sulfophenyl)azo]-(9CI) (CA INDEX NAME)

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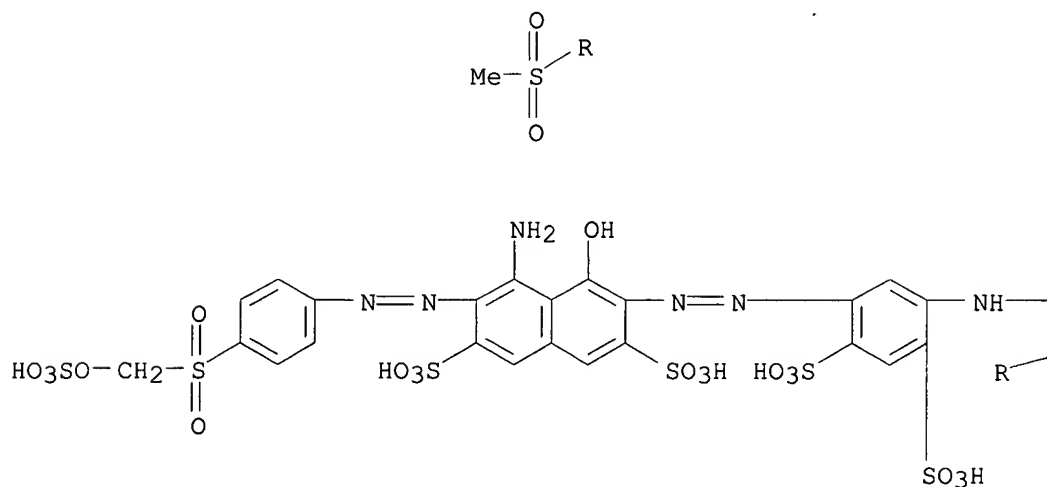
IT 119842-03-4P 119842-14-7P 119842-15-8P
 119842-19-2P 119842-20-5P 119859-60-8P
 119859-61-9P

RL: PREP (Preparation)
 (manuf. of, as reactive dye)

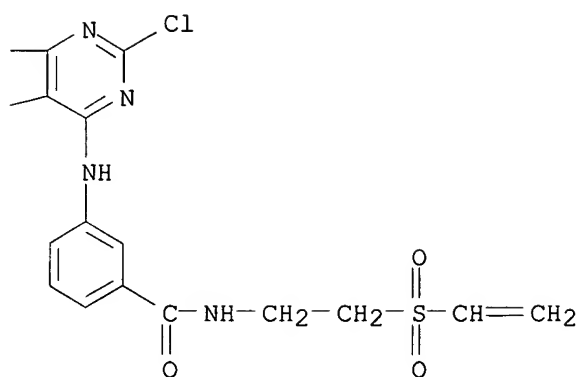
RN 119842-03-4 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[2-chloro-6-[[3-[[[2-(ethenylsulfonyl)ethyl]amino]carbonyl]phenyl]amino]-5-(methylsulfonyl)-4-pyrimidinyl]amino]-2,4-disulfophenyl]azo]-5-hydroxy-3-[[4-[[[(sulfoxy)methyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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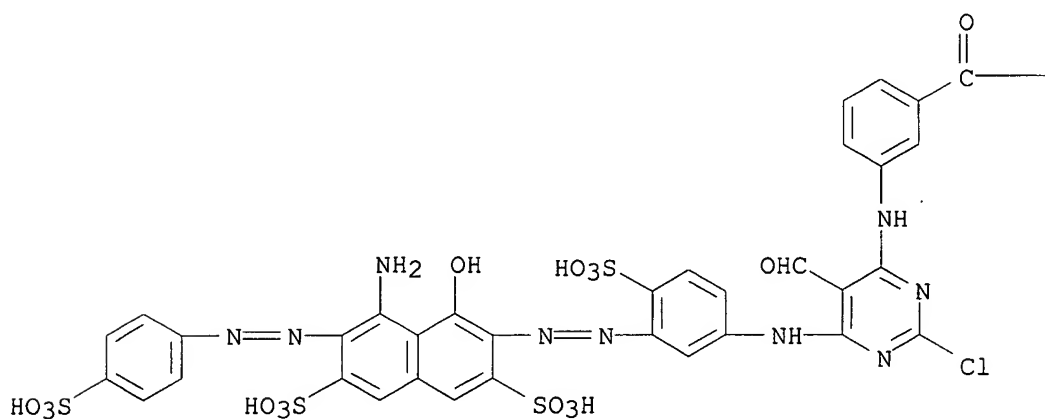
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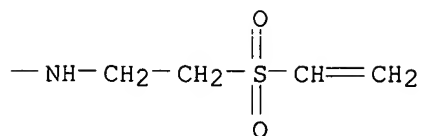
RN 119842-14-7 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[2-chloro-6-[[3-[[[2-(ethenylsulfonyl)ethyl]amino]carbonyl]phenyl]amino]-5-formyl-4-pyrimidinyl]amino]-2-sulfophenyl]azo]-5-hydroxy-3-[(4-sulfophenyl)azo]-(9CI) (CA INDEX NAME)

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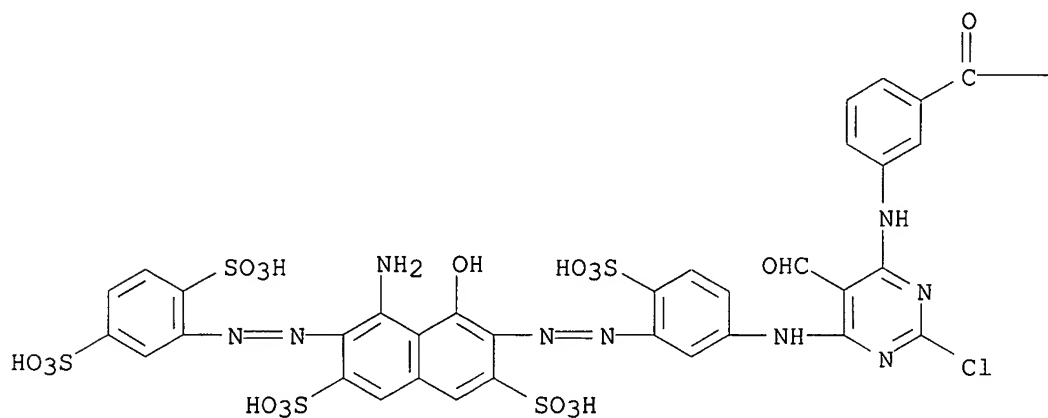


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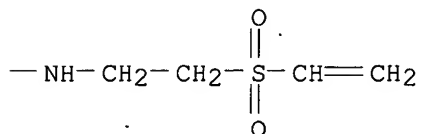


RN 119842-15-8 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[2-chloro-6-[[3-[[[2-(ethenylsulfonyl)ethyl]amino]carbonyl]phenyl]amino]-5-formyl-4-pyrimidinyl]amino]-2-sulfophenyl]azo]-3-[(2,5-disulfophenyl)azo]-5-hydroxy-(9CI) (CA INDEX NAME)

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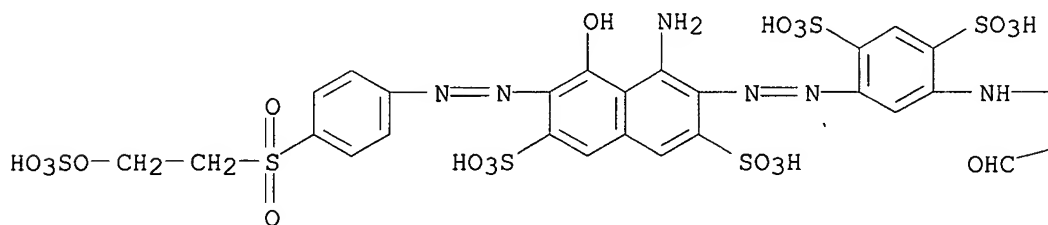


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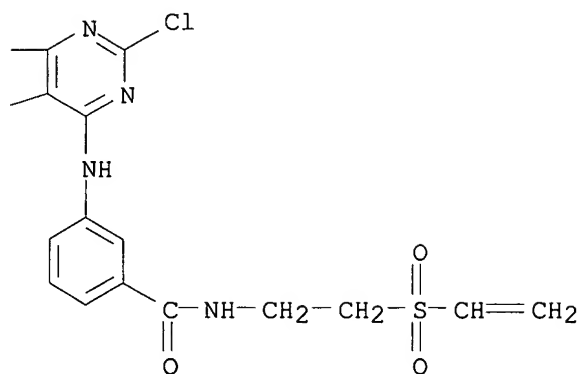


RN 119842-19-2 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[5-[[2-chloro-6-[[3-[[[2-(ethenylsulfonyl)ethyl]amino]carbonyl]phenyl]amino]-5-formyl-4-pyrimidinyl]amino]-2,4-disulfophenyl]azo]-5-hydroxy-6-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

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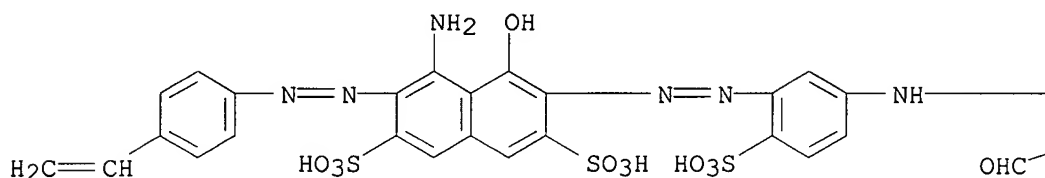
PAGE 1-B



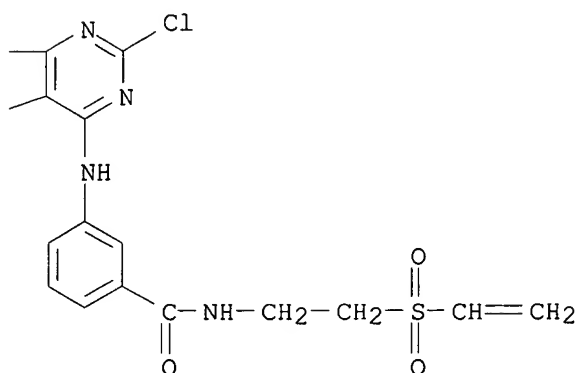
RN 119842-20-5 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[2-chloro-6-[[3-[[[2-(ethenylsulfonyl)ethyl]amino]carbonyl]phenyl]amino]-5-formyl-4-pyrimidinyl]amino]-2-sulfophenyl]azo]-5-hydroxy-3-[(4-ethenylphenyl)azo]- (9CI) (CA INDEX NAME)

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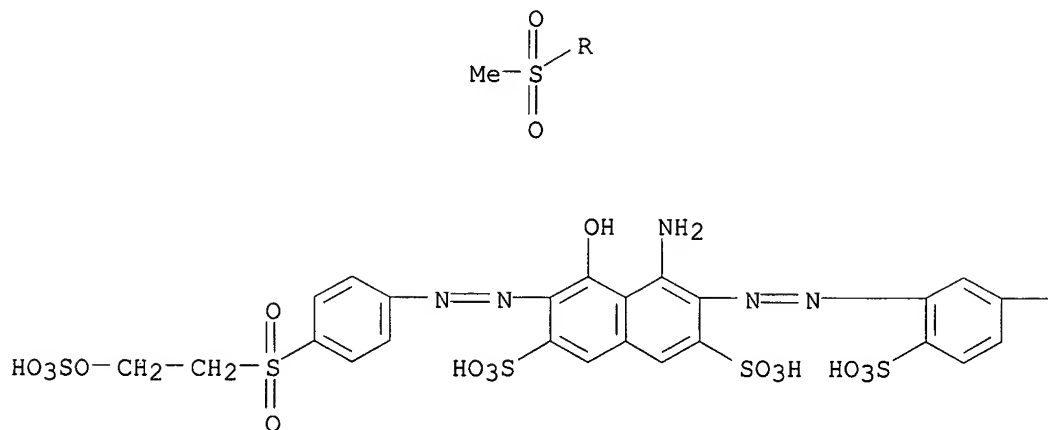


RN 119859-60-8 HCA

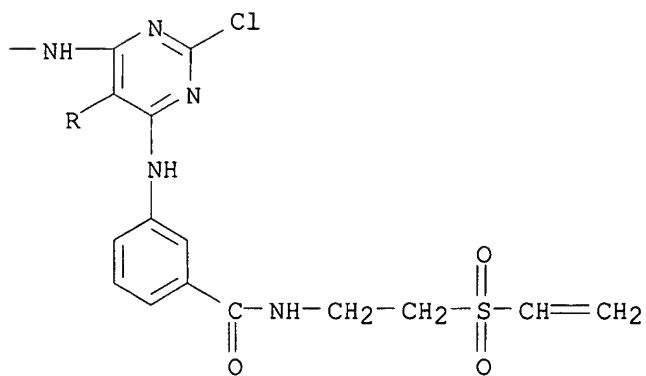
CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[5-[[2-chloro-6-[[3-[[[2-(ethenylsulfonyl)ethyl]amino]carbonyl]phenyl]amino]-5-(methylsulfonyl)-4-pyrimidinyl]amino]-2-sulfophenyl]azo]-5-hydroxy-6-[[4-[[2-(ethenylsulfonyl)ethyl]amino]carbonyl]phenyl]amino]-5-hydroxy-3-[(4-ethenylphenyl)azo]- (9CI) (CA INDEX NAME)

(sulfooxy)ethyl]sulfonyl]phenyl]azo)- (9CI) (CA INDEX NAME)

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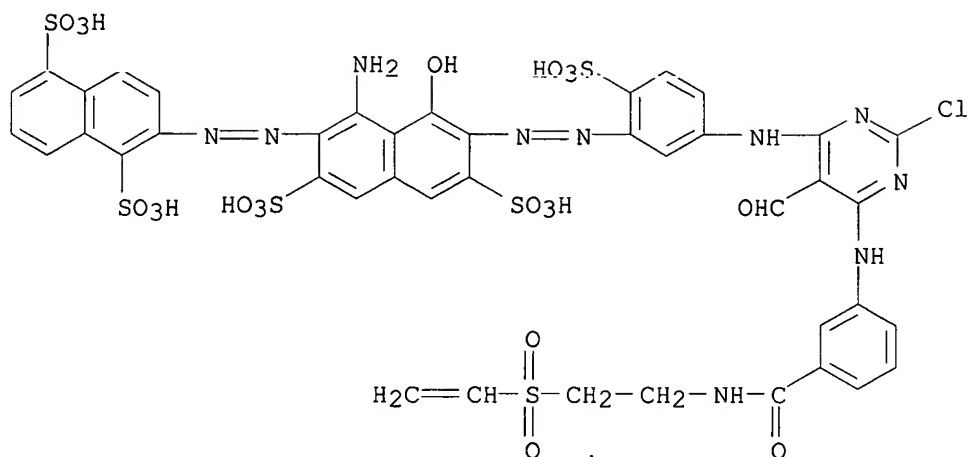


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RN 119859-61-9 HCA

CN 1,5-Naphthalenedisulfonic acid, 2-[[[1-amino-7-[[5-[[2-chloro-6-[[3-[[[2-(ethenylsulfonyl)ethyl]amino]carbonyl]phenyl]amino]-5-formyl-4-pyrimidinyl]amino]-2-sulfo]phenyl]azo]-8-hydroxy-3,6-disulfo-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)



IT 119841-97-3P 119841-98-4P 119841-99-5P

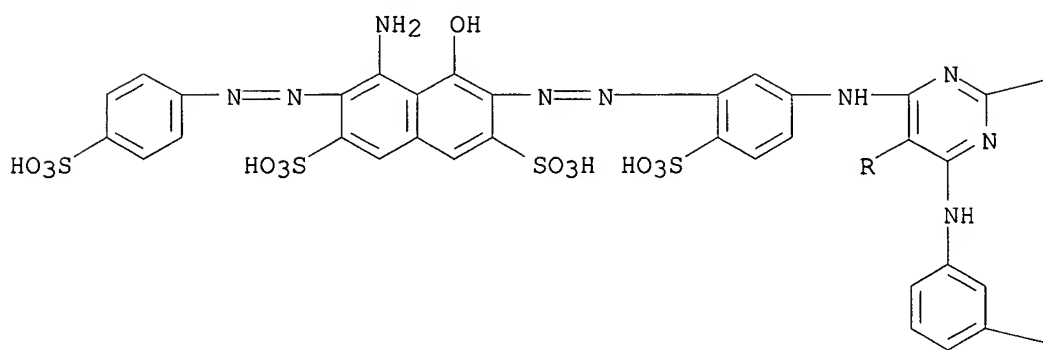
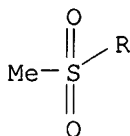
RL: PREP (Preparation)

(manuf. of, as reactive navy blue dye)

RN 119841-97-3 HCA

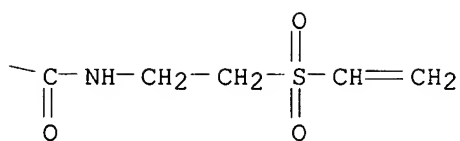
CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[2-chloro-6-[[3-[[[2-(ethenylsulfonyl)ethyl]amino]carbonyl]phenyl]amino]-5-(methanesulfonyl)-4-pyrimidinyl]amino]-2-sulfophenyl]azo]-5-hydroxy-3-[(4-sulfophenyl)azo]-(9CI) (CA INDEX NAME)

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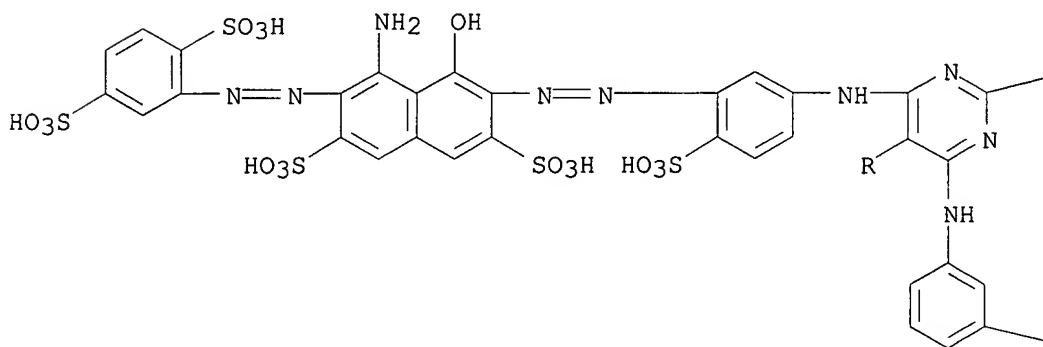
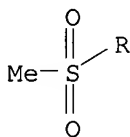
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RN 119841-98-4 HCA

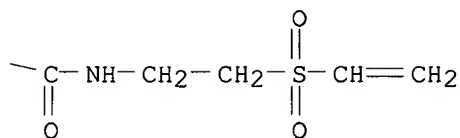
CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[2-chloro-6-[[3-[[[2-(ethenylsulfonyl)ethyl]amino]carbonyl]phenyl]amino]-5-(methanesulfonyl)-4-pyrimidinyl]amino]-2-sulfophenyl]azo]-5-hydroxy-2-[(2,5-disulfophenyl)azo]-(9CI) (CA INDEX NAME)

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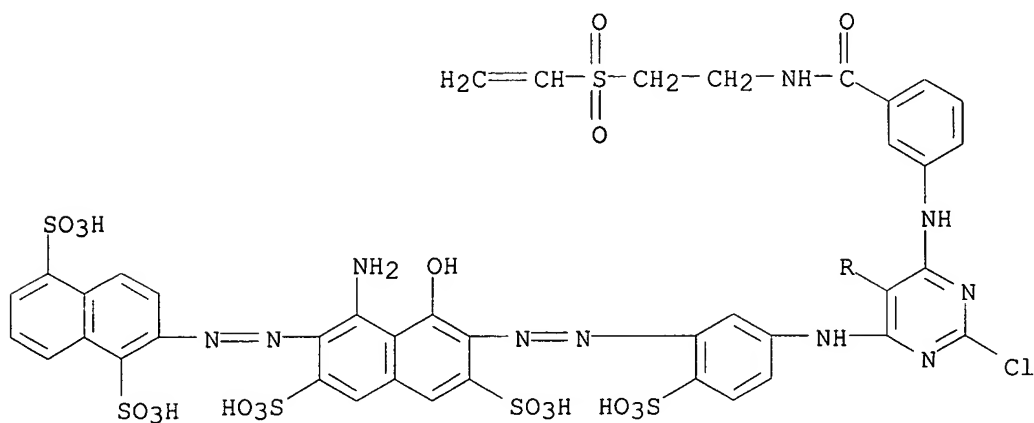
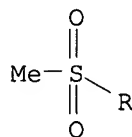
PAGE 1-B

—Cl



RN 119841-99-5 HCA

CN 1,5-Naphthalenedisulfonic acid, 2-[[[1-amino-7-[[5-[[2-chloro-6-[[3-[[[2-(ethenylsulfonyl)ethyl]amino]carbonyl]phenyl]amino]-5-(methylsulfonyl)-4-pyrimidinyl]amino]-2-sulphophenyl]azo]-8-hydroxy-3,6-disulfo-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)

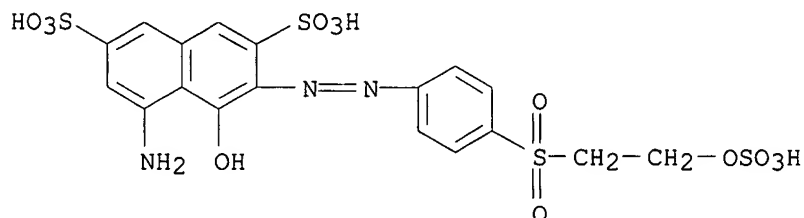


IT 70817-69-5 98232-03-2 119841-87-1

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in bifunctional reactive dye manuf.)

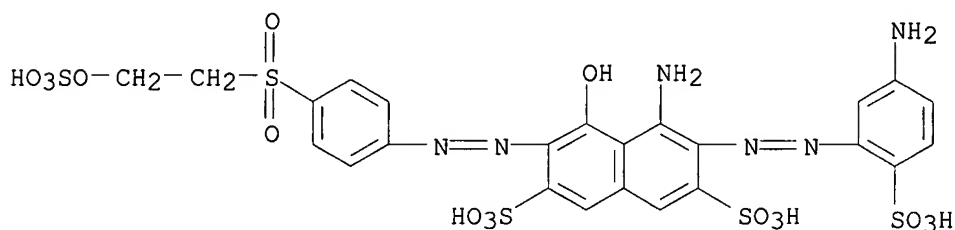
RN 70817-69-5 HCA

CN 2,7-Naphthalenedisulfonic acid, 5-amino-4-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



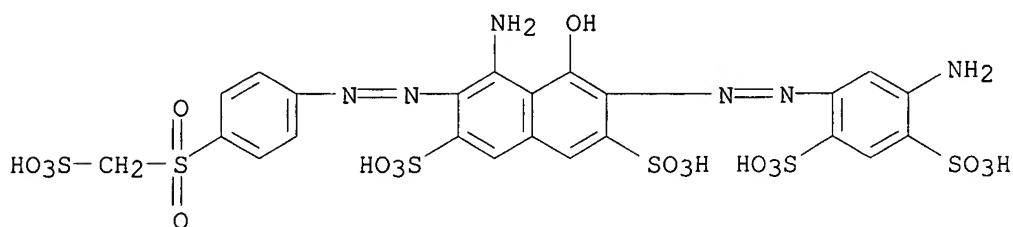
RN 98232-03-2 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[(5-amino-2-sulphophenyl)azo]-5-hydroxy-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



RN 119841-87-1 HCA

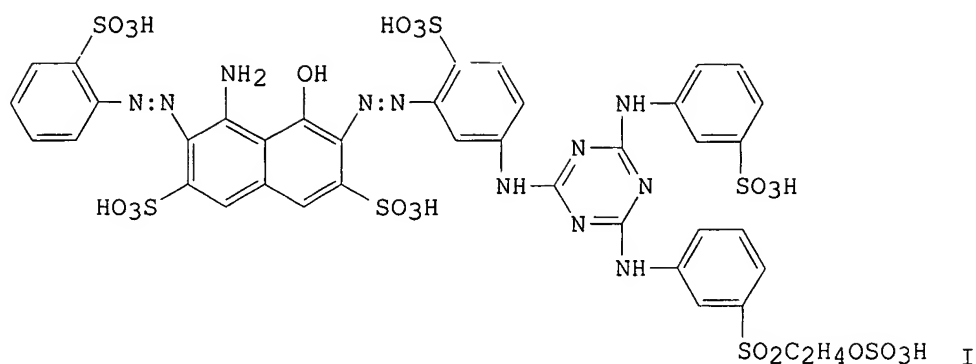
CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[(5-amino-2,4-disulphophenyl)azo]-5-hydroxy-3-[[4-[(sulfomethyl)sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



L59 ANSWER 11 OF 14 HCA COPYRIGHT 2003 ACS

108:39576 Dyeing or printing by disazo compounds. Omura, Takashi (Sumitomo Chemical Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 62190259 A2
19870820 Showa, 13 pp. (Japanese). CODEN: JKXXAF. APPLICATION:
 JP 1986-32644 19860217.

GI



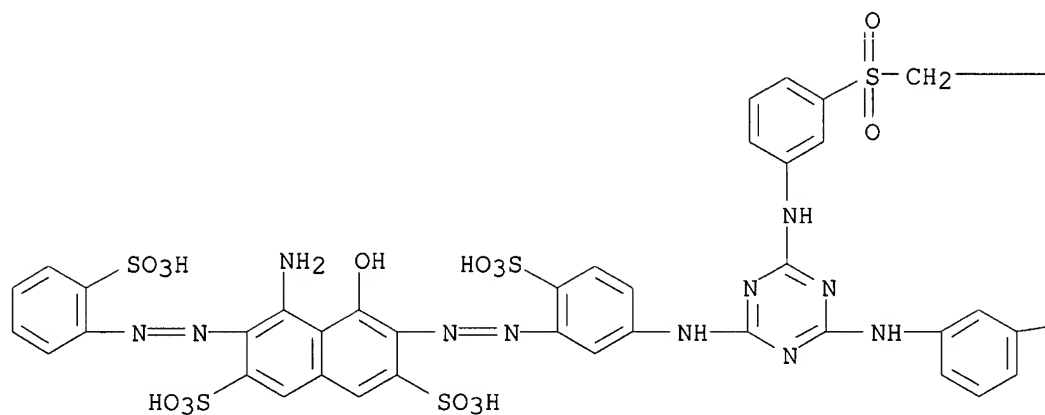
AB Dyes imparting dark blue shades to cotton such as I are prepd. Thus, aniline-2-sulfonic acid was diazotized and coupled with 1-amino-8-hydroxynaphthalene-3,6-disulfonic acid. Then cyanuric chloride was treated with 2,4-diaminobenzenesulfonic acid and aniline-3-sulfonic acid and diazotized. The intermediates were coupled, and treated with 1-aminobenzene-3-.beta.-sulfatoethyl sulfone to prep. I.

IT 112394-88-4 112394-89-5 112394-90-8
 112394-91-9 112394-92-0 112394-93-1
 112394-95-3 112394-96-4 112394-97-5
 112394-98-6 112394-99-7 112395-00-3
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 112395-07-0 112395-08-1 112395-09-2
 112395-10-5 112395-11-6 112395-12-7
 112395-13-8 112395-14-9 112395-15-0
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 112395-35-4 112395-36-5 112395-37-6
 112395-38-7 112395-39-8 112395-40-1
 112398-16-0 112418-26-5 112418-27-6
 112418-28-7 112418-29-8

RL: TEM (Technical or engineered material use); USES (Uses)
 (dyes, for cotton)

RN 112394-88-4 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[(2-sulfophenyl)azo]-6-
 [[2-sulfo-5-[[4-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-6-[(3-
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 NAME)

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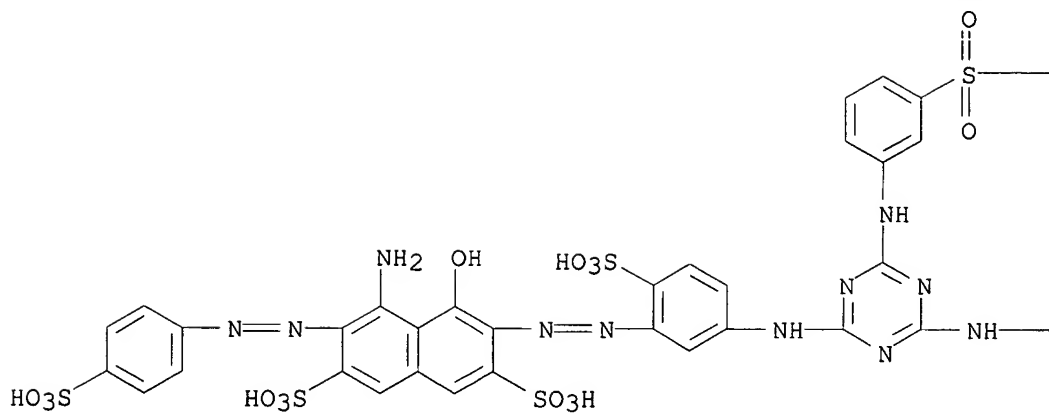


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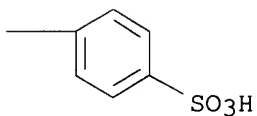
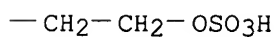
—CH₂—OSO₃H—SO₃H

RN 112394-89-5 HCA
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 NAME)

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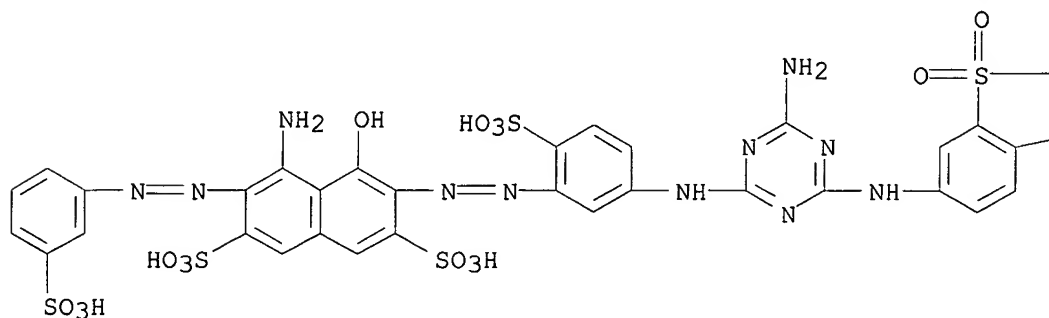
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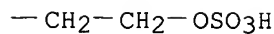
RN 112394-90-8 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-amino-6-[[4-methoxy-3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-5-hydroxy-3-[(3-sulfophenyl)azo]- (9CI) (CA INDEX NAME)

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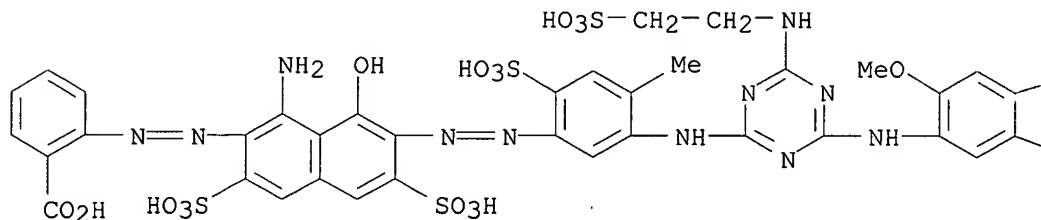


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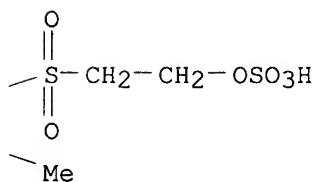


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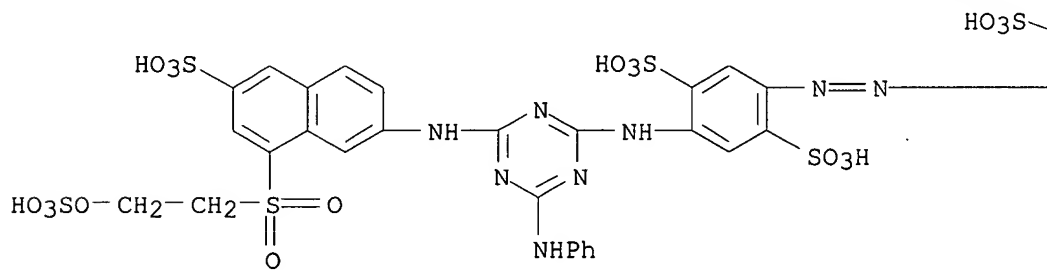


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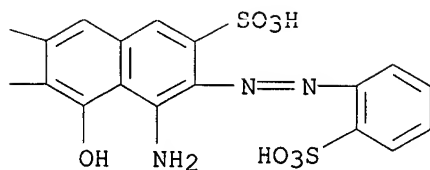


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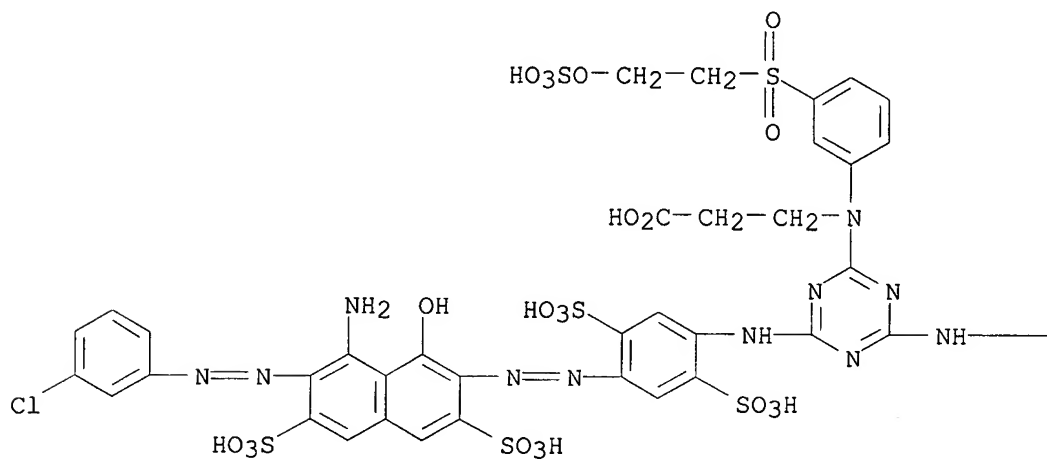


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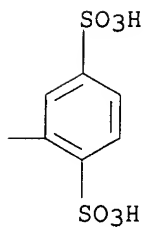


RN 112394-93-1 HCA
 CN .beta.-Alanine, N-[4-[[4-[[8-amino-7-[(3-chlorophenyl)azo]-1-hydroxy-3,6-disulfo-2-naphthalenyl]azo]-2,5-disulfophenyl]amino]-6-[(2,5-disulfophenyl)amino]-1,3,5-triazin-2-yl]-N-[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)

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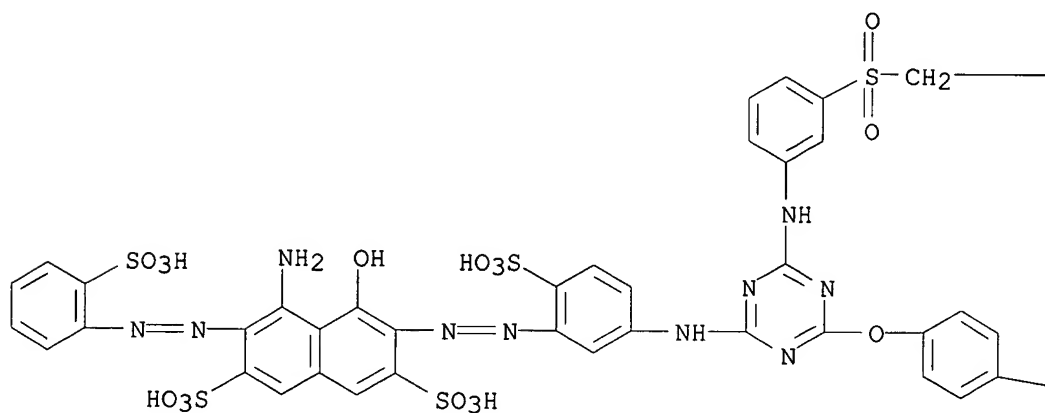
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RN 112394-95-3 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[(2-sulfophenyl)azo]-6-
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sulfophenoxy)-1,3,5-triazin-2-yl]amino]phenyl]azo]- (9CI) (CA INDEX NAME)

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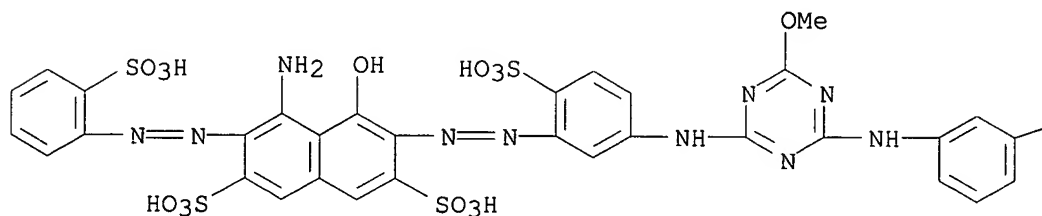
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—CH₂—OSO₃H—SO₃H

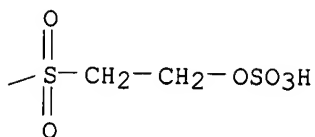
RN 112394-96-4 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-6-[[5-[[4-methoxy-6-[[3-
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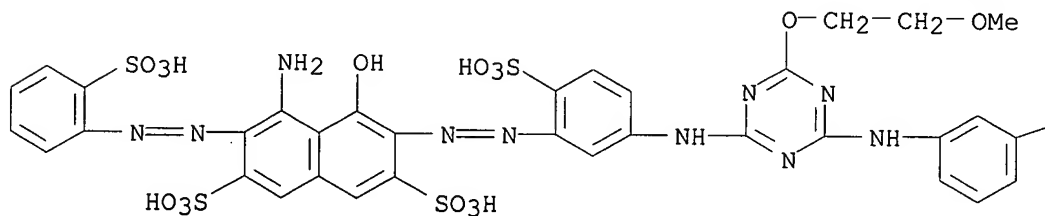


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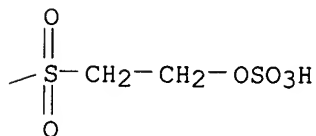


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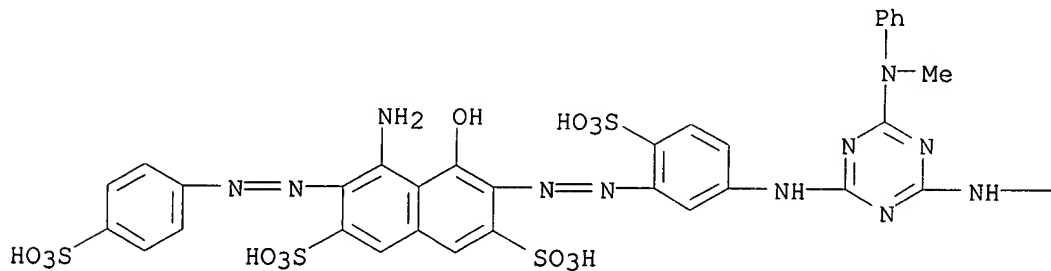


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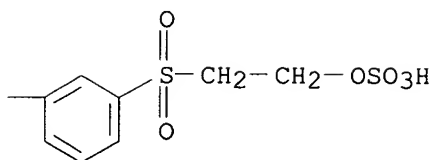


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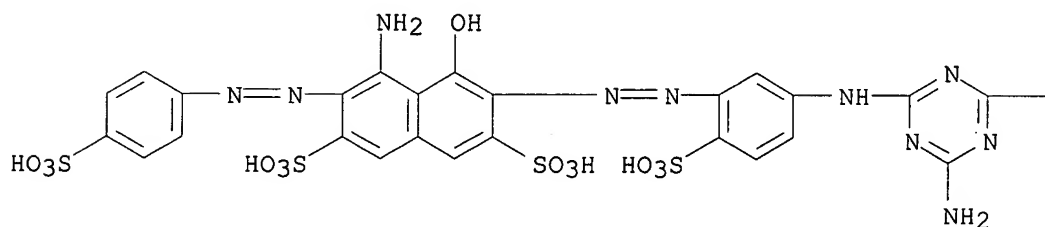


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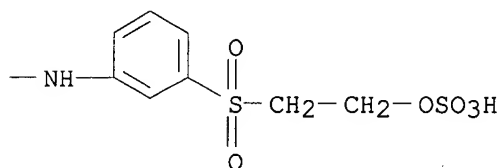


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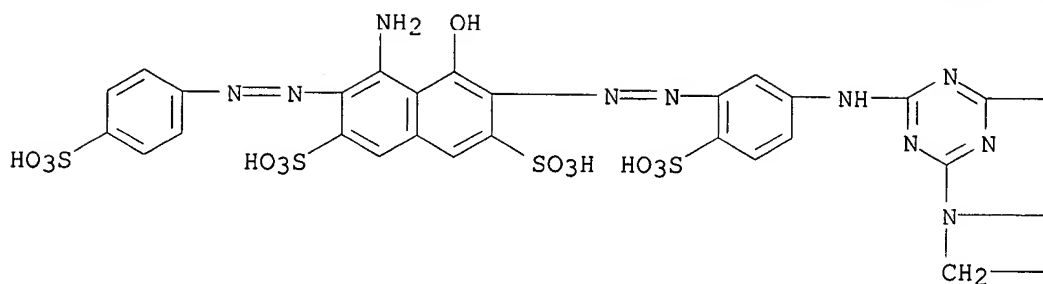


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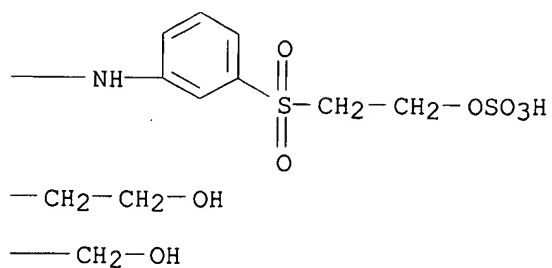


RN 112395-00-3 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-[bis(2-hydroxyethyl)amino]-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-5-hydroxy-3-[(4-sulfophenyl)azo]- (9CI) (CA INDEX NAME)

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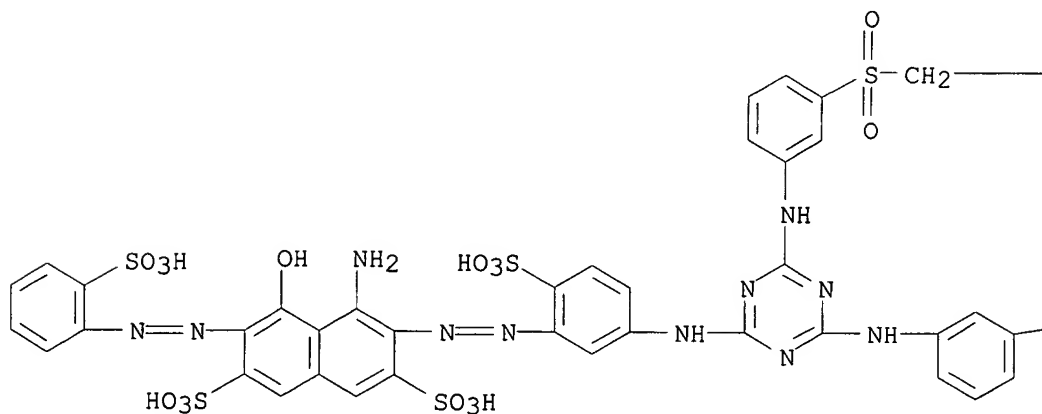


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RN 112395-01-4 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-6-[(2-sulfophenyl)azo]-3-
 [[2-sulfo-5-[[4-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-6-[(3-
 sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]- (9CI) (CA INDEX
 NAME)

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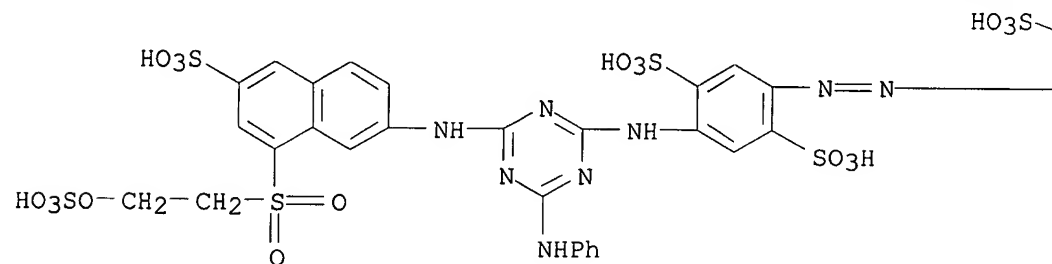


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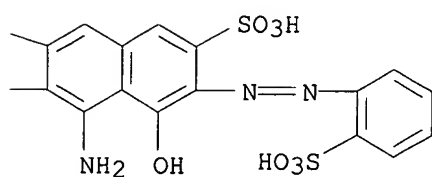
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RN 112395-02-5 HCA
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 (CA INDEX NAME)

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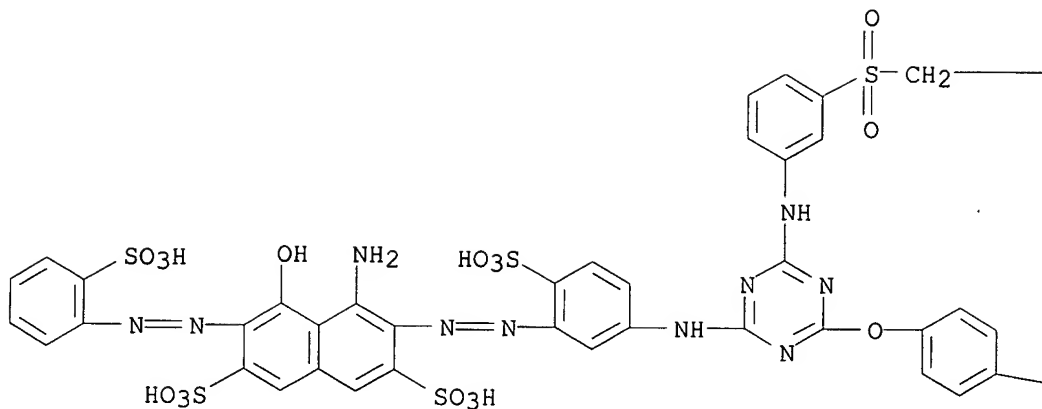


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


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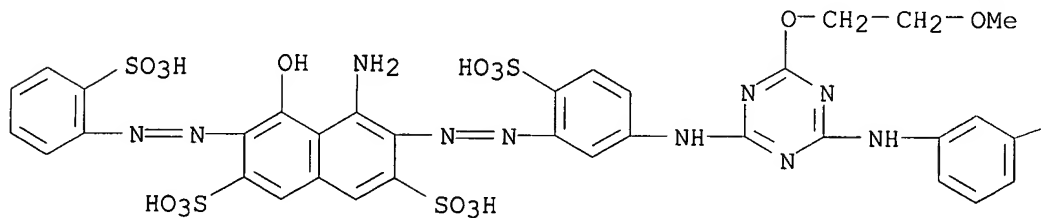


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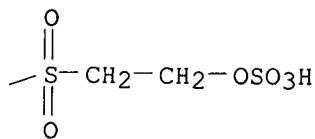
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 SO₃H

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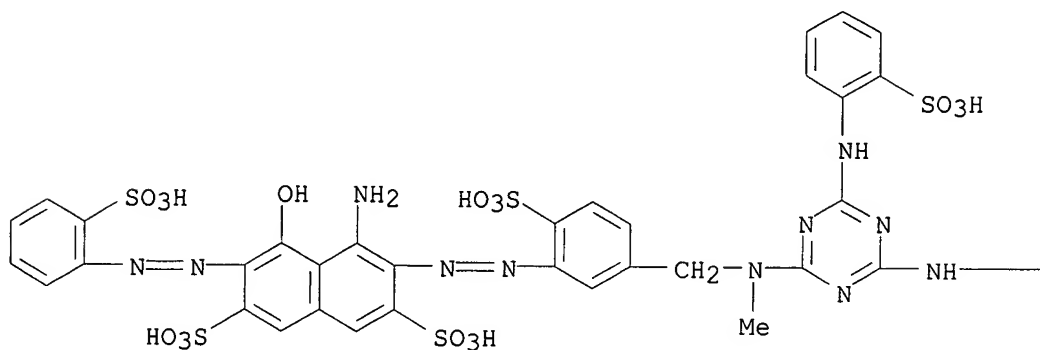


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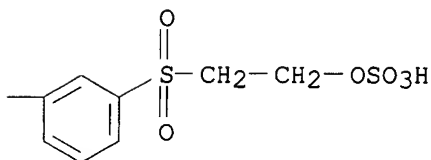


RN 112395-05-8 HCA
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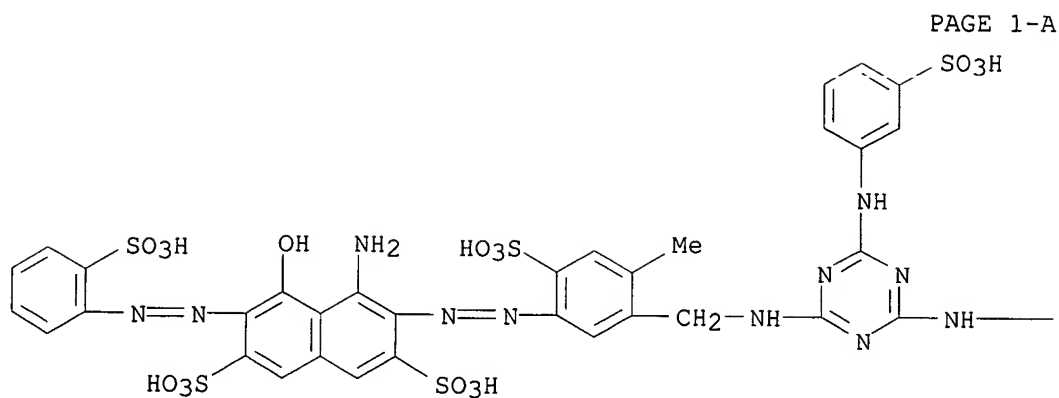
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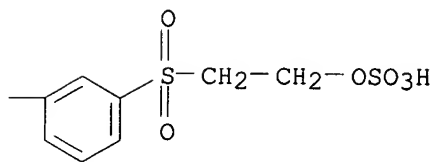
PAGE 1-B



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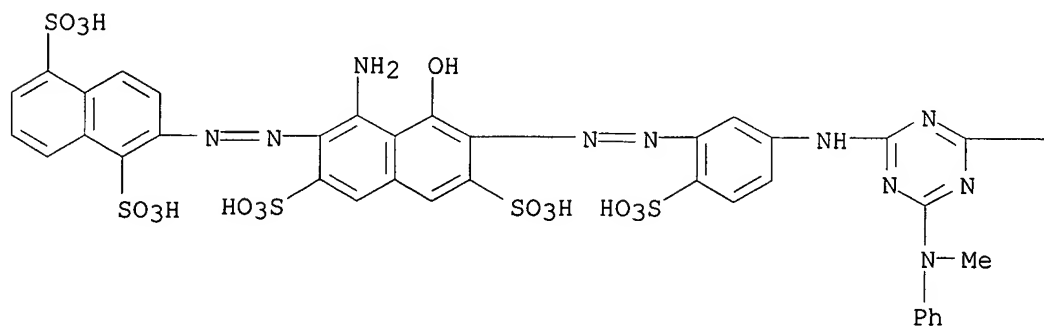


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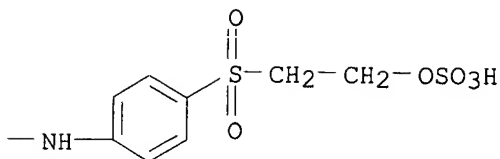


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 (9CI) (CA INDEX NAME)

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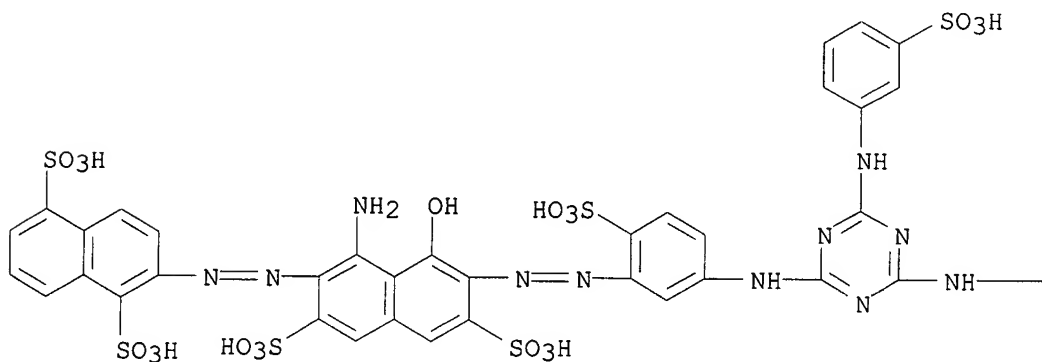
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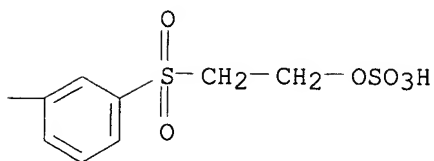
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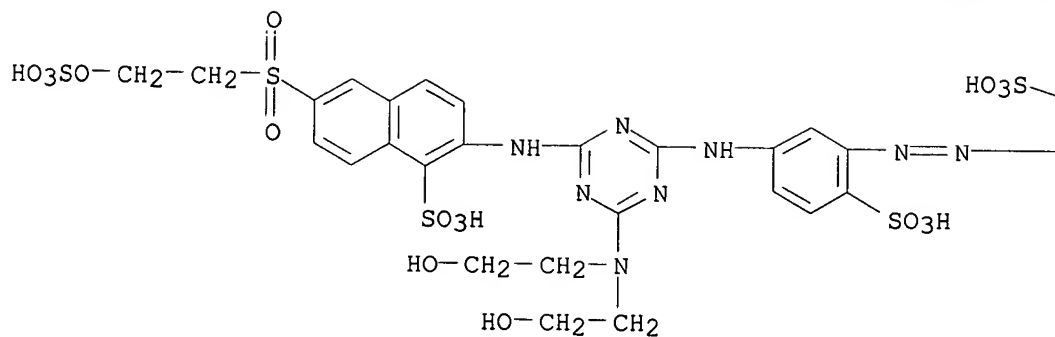
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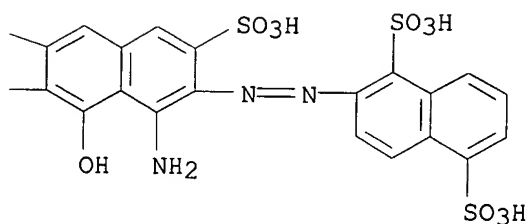
RN 112395-09-2 HCA

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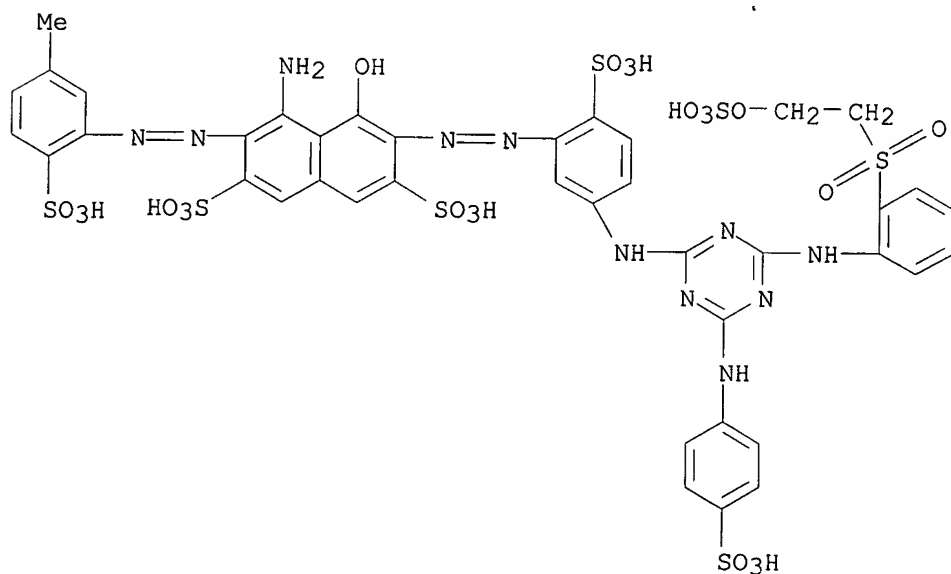


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RN 112395-10-5 HCA

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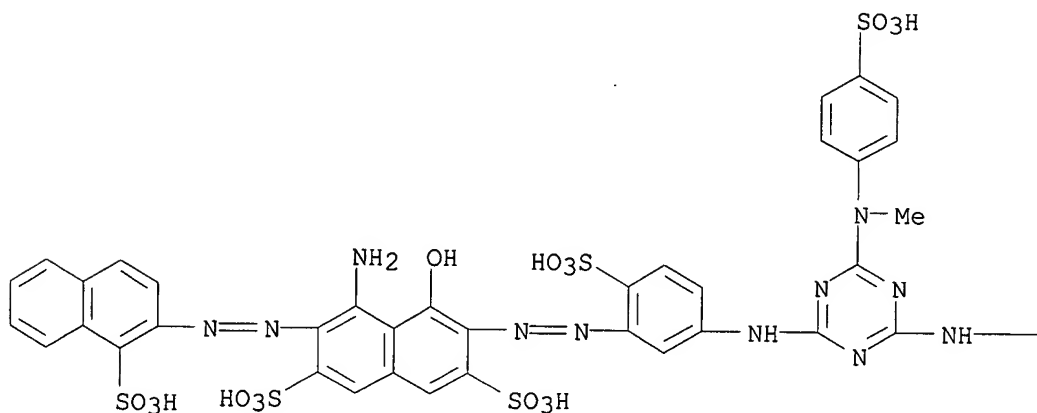


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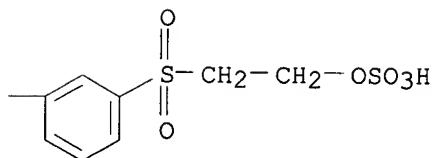
CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-6-[[5-[[4-[methyl(4-

sulfophenyl)amino]-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-3-[(1-sulfo-2-naphthalenyl)azo]-(9CI) (CA INDEX NAME)

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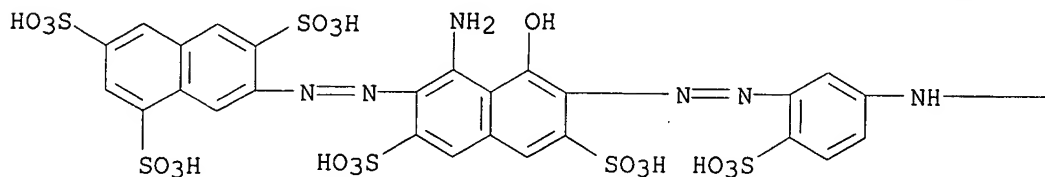
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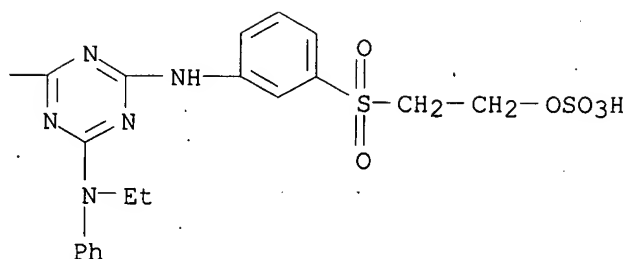
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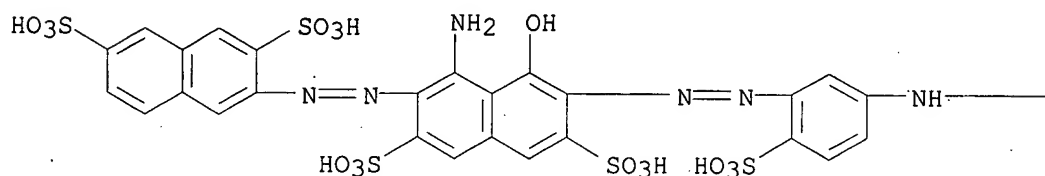
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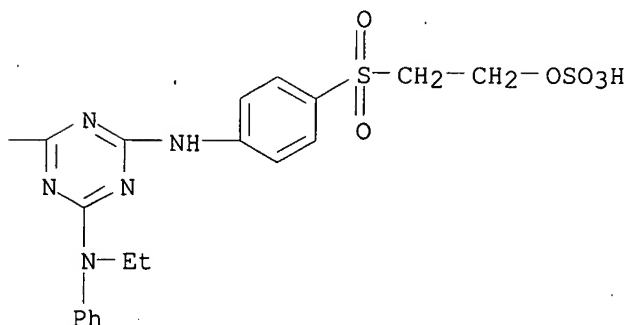
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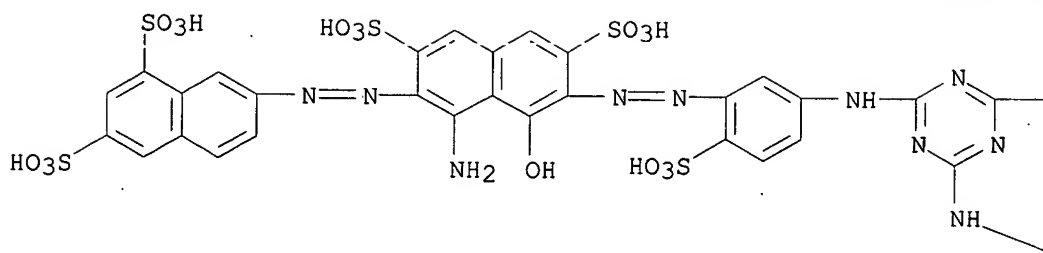
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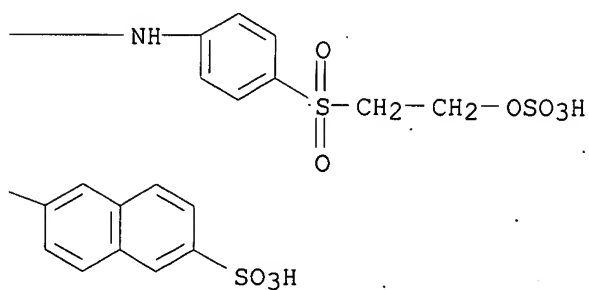
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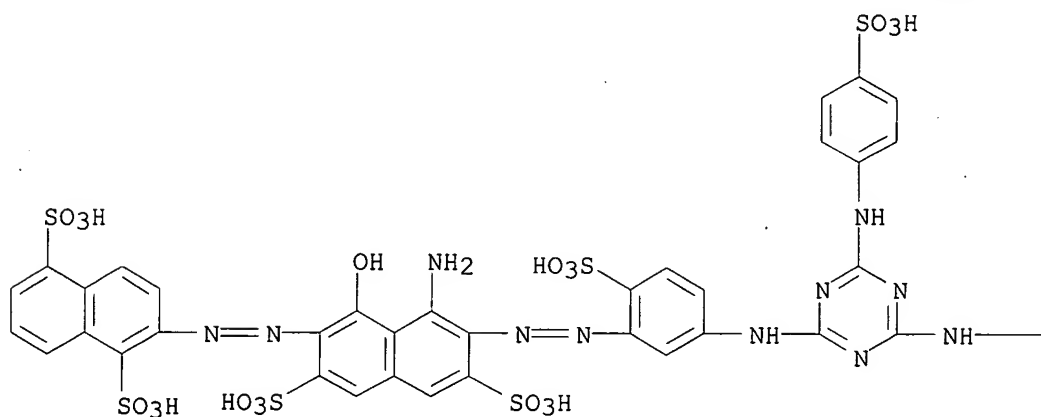
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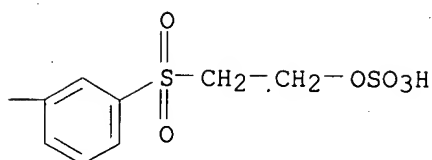
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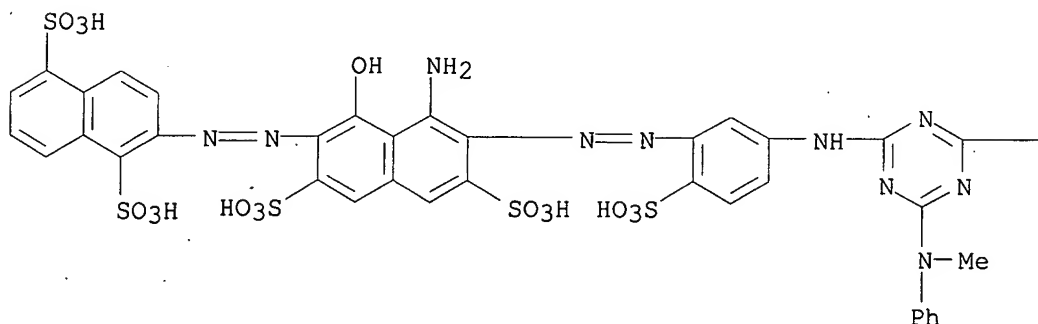
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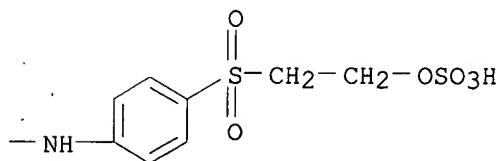
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CN 1,5-Naphthalenedisulfonic acid, 2-[[8-amino-1-hydroxy-7-[[5-[[4-(methylphenylamino)-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-3,6-disulfo-2-naphthalenyl]azo]-(9CI) (CA INDEX NAME)

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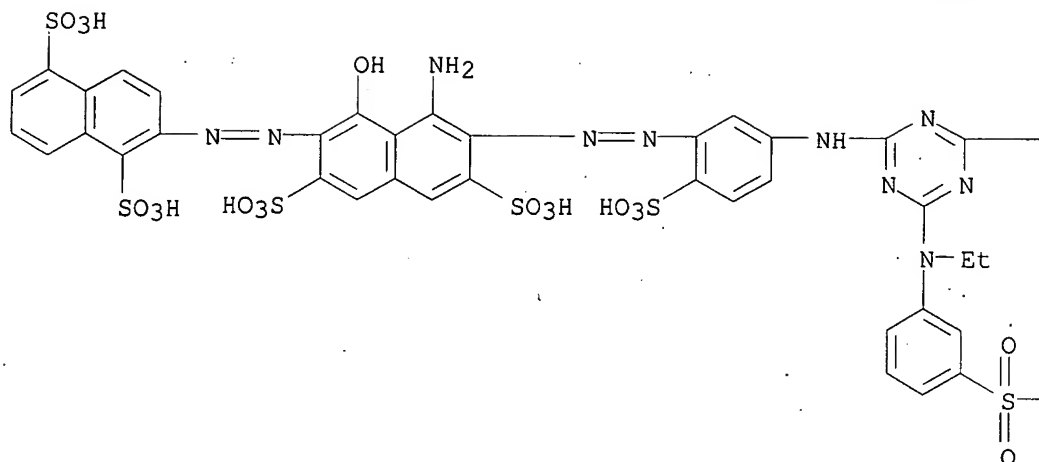
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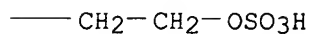
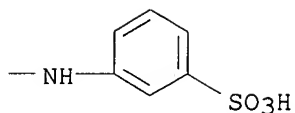
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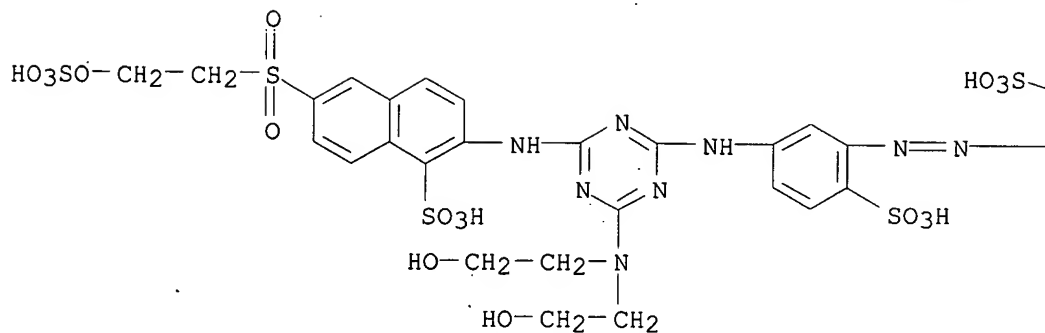
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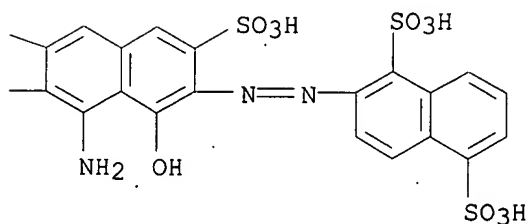
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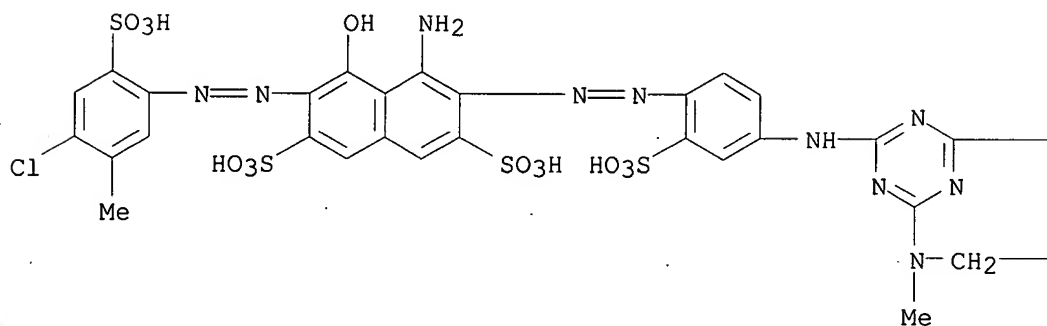
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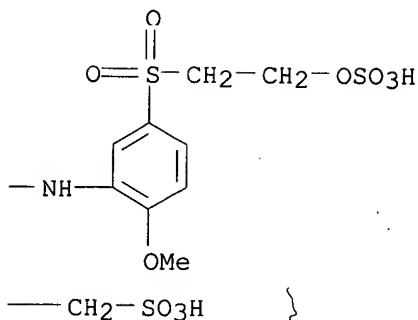
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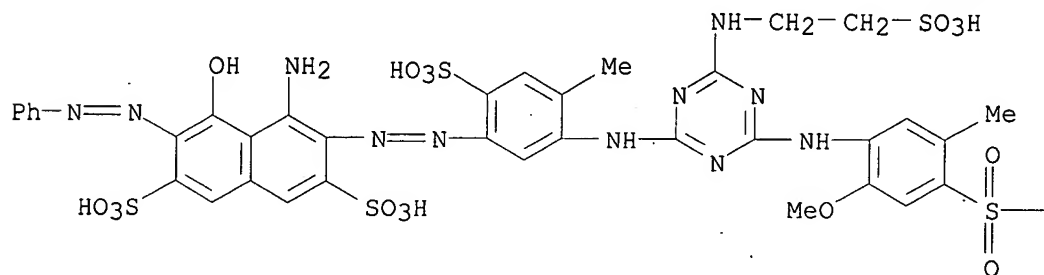
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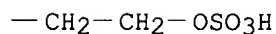
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CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[5-[[4-[[2-methoxy-5-methyl-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-6-[(2-sulfoethyl)amino]-1,3,5-triazin-2-yl]amino]-4-methyl-2-sulfophenyl]azo]-6-(phenylazo)- (9CI) (CA INDEX NAME)

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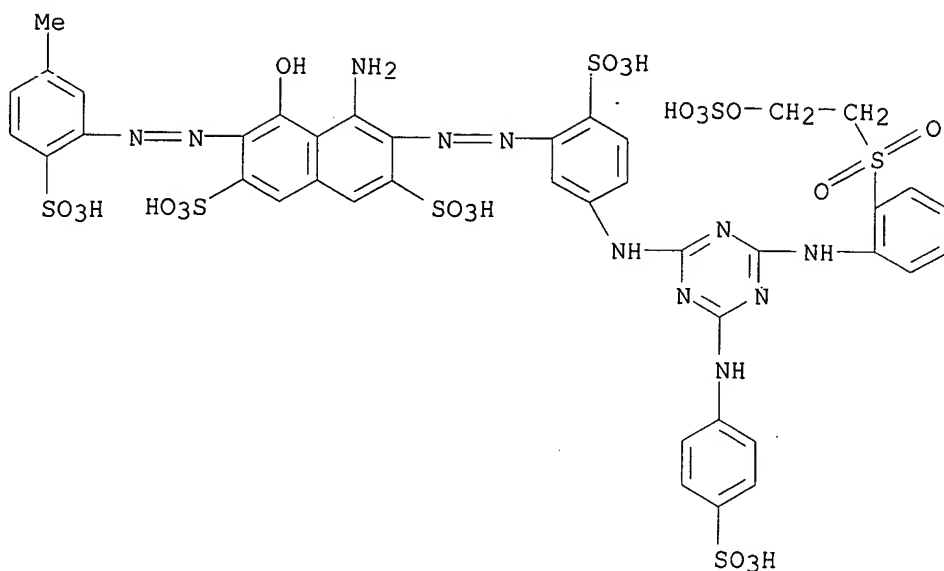


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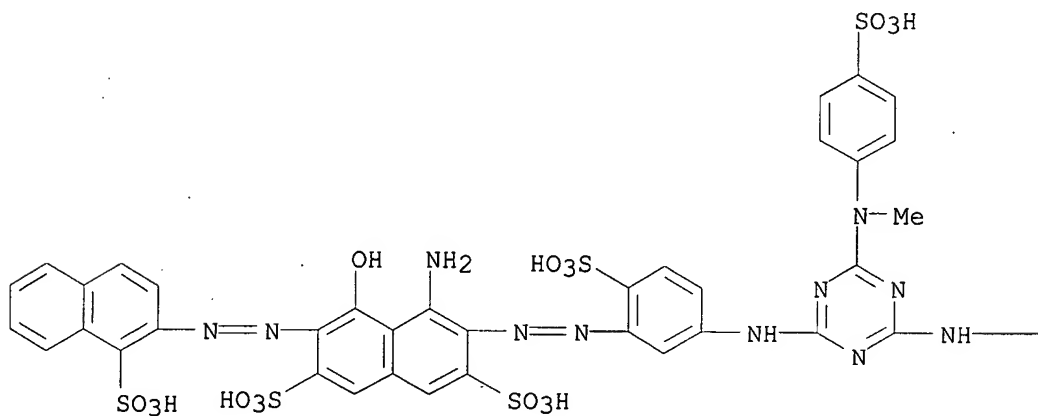
RN 112395-21-8 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-6-[(5-methyl-2-sulfophenyl)azo]-3-[[2-sulfo-5-[[4-[[2-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-6-[(4-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]- (9CI) (CA INDEX NAME)

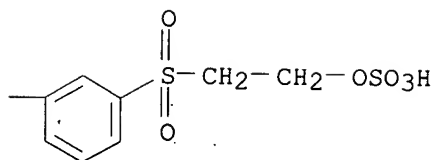


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 CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[5-[[4-[methyl(4-sulfophenyl)amino]-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-6-[(1-sulfo-2-naphthalenyl)azo]-(9CI) (CA INDEX NAME)

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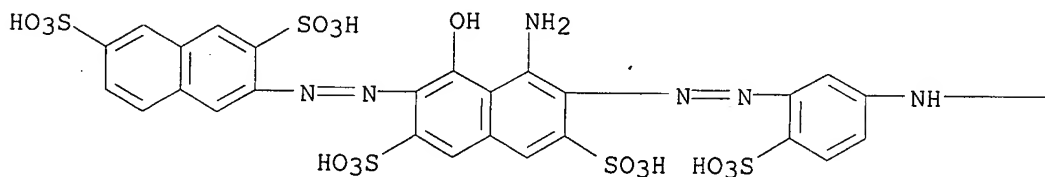


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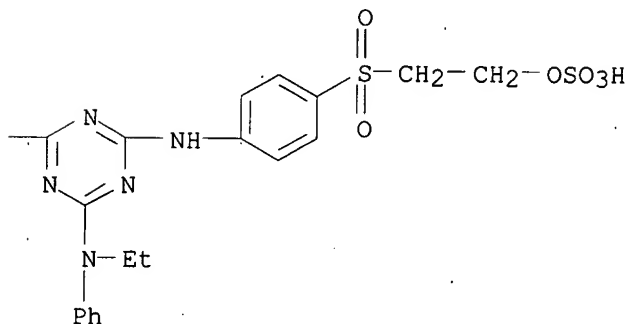


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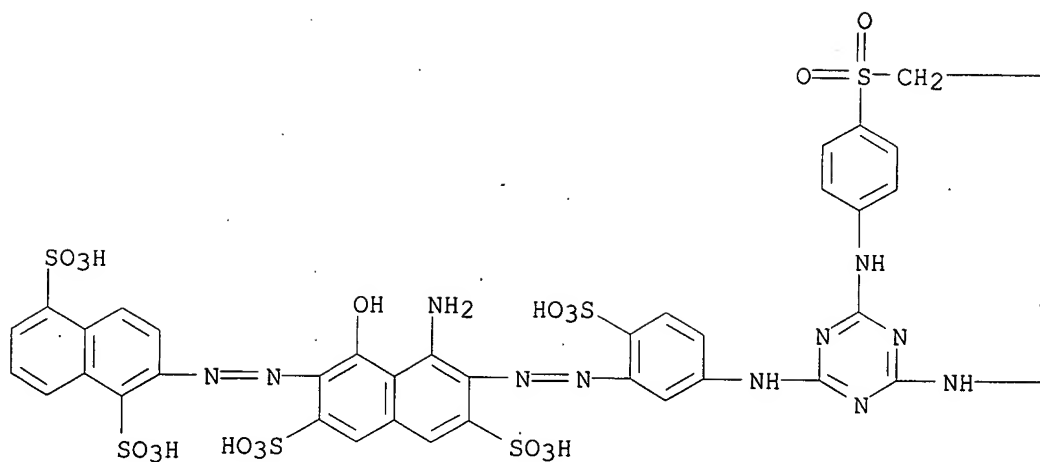


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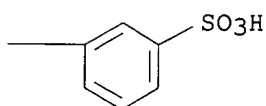


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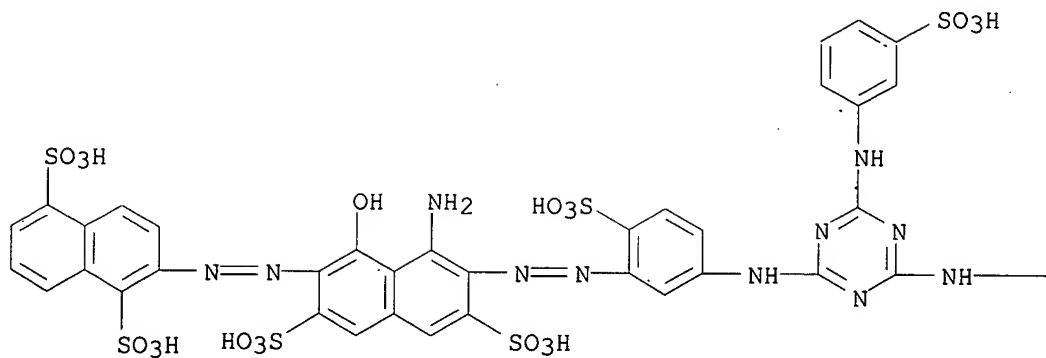


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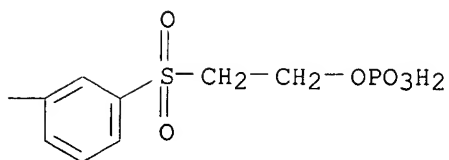
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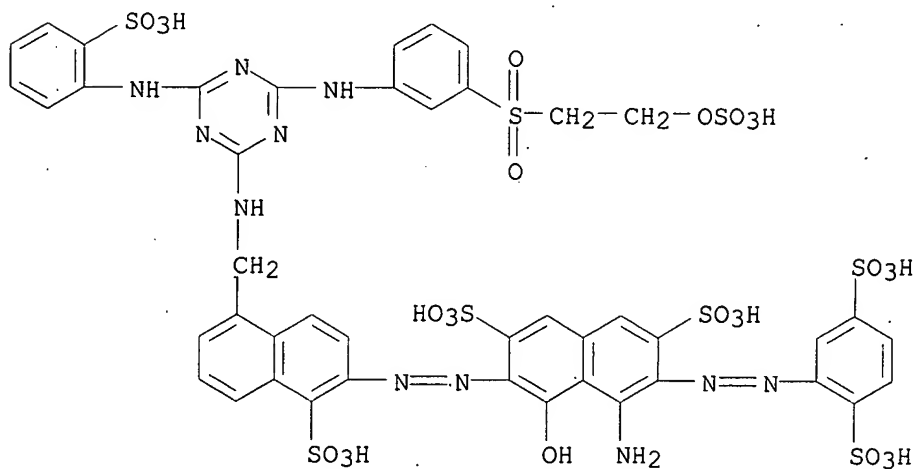
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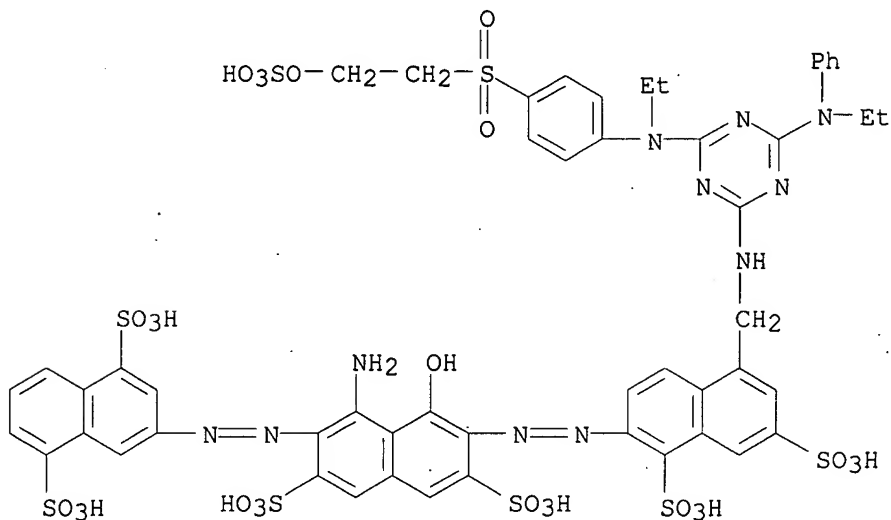


RN 112395-27-4 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[(2,5-disulfophenyl)azo]-5-hydroxy-6-[[1-sulfo-5-[[[4-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-6-[(2-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]methyl]-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)



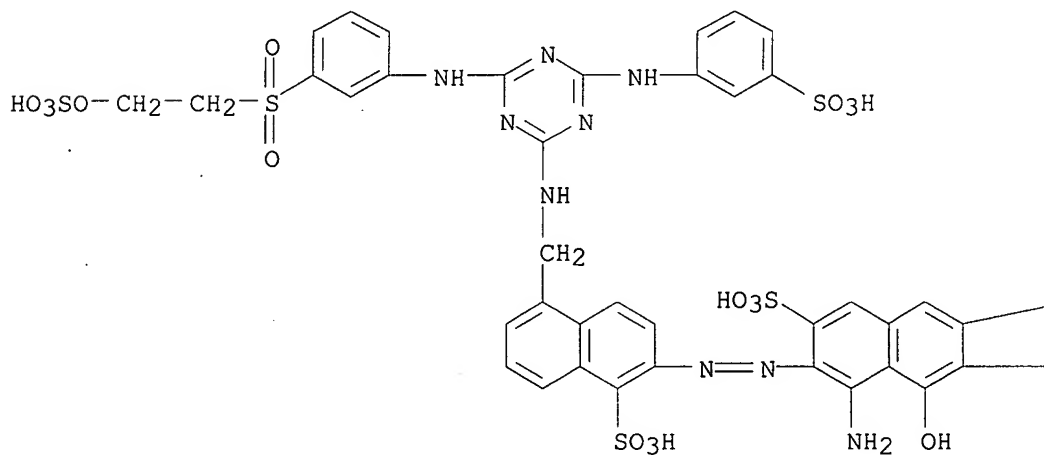
RN 112395-28-5 HCA

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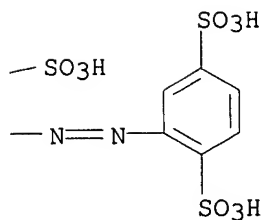
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CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[(2,5-disulfophenyl)azo]-5-hydroxy-3-[[[1-sulfo-5-[[[4-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-6-[(3-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]methyl]-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)



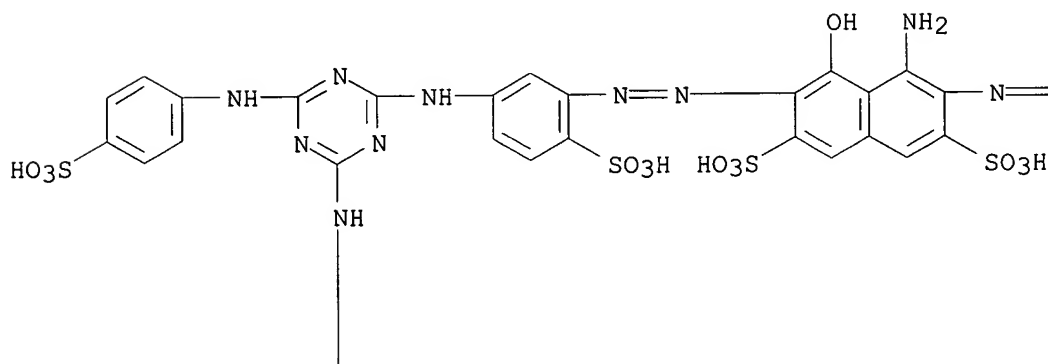
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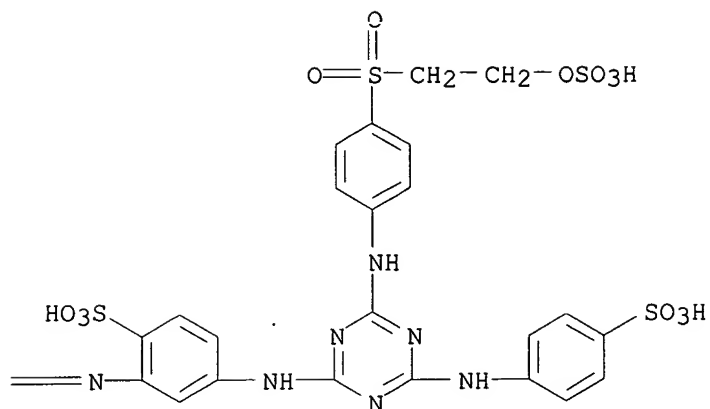


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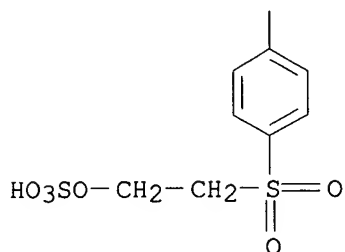
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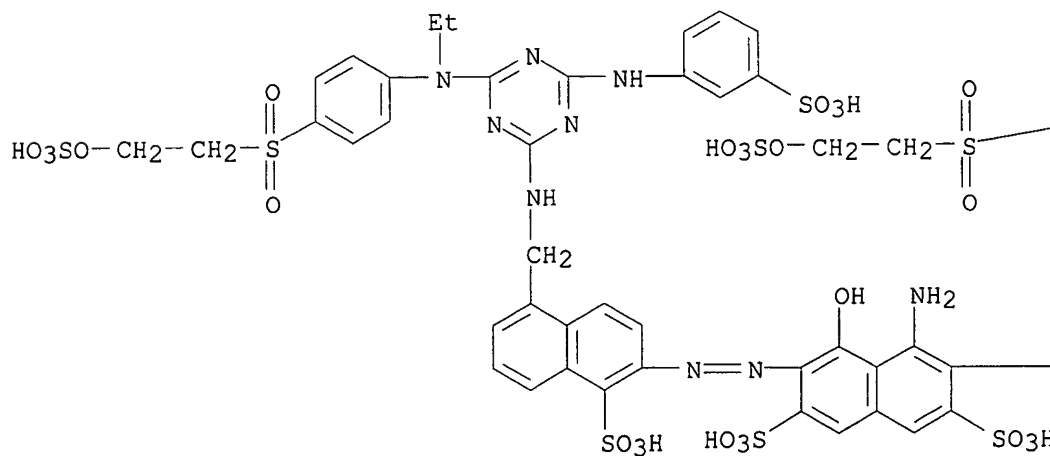


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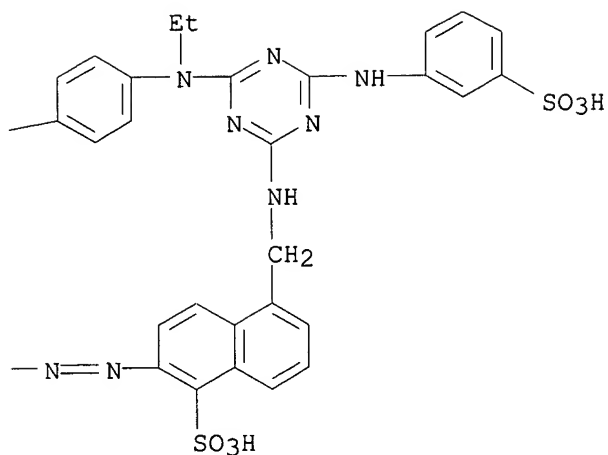


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 (CA INDEX NAME)

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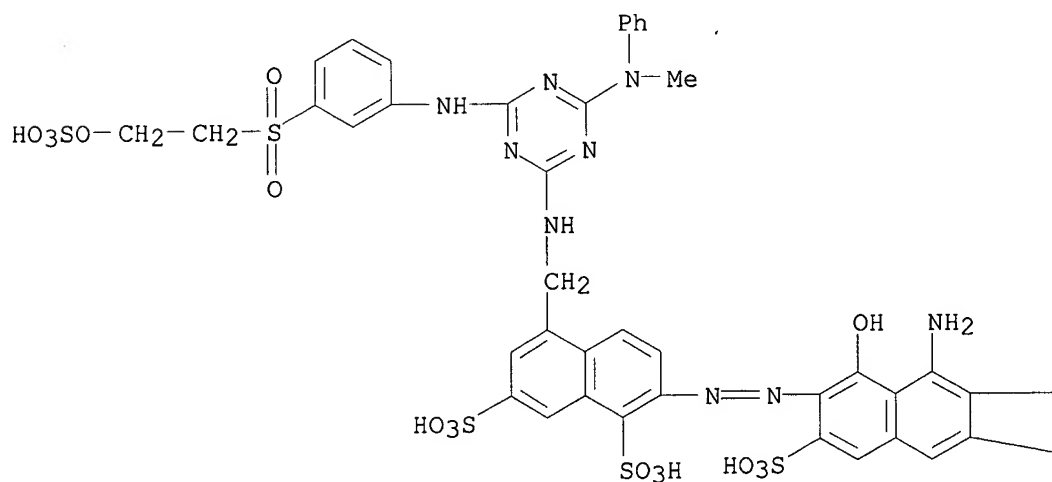
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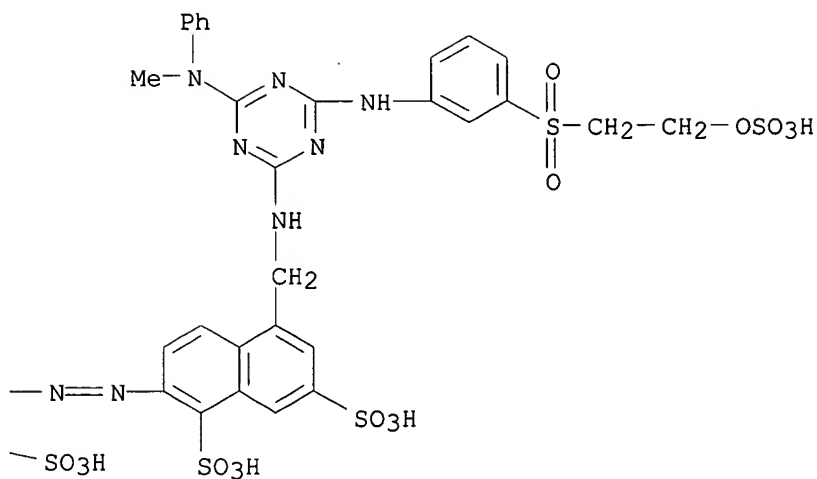
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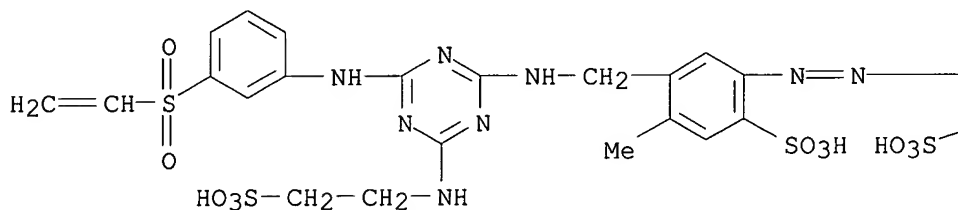


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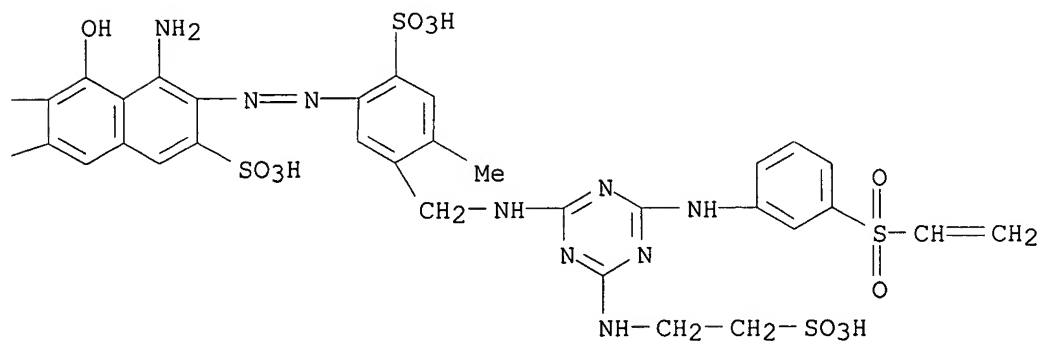


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 CN 2,7-Naphthalenedisulfonic acid, 4-amino-3,6-bis[[5-[[[4-[[3-(ethenylsulfonyl)phenyl]amino]-6-[(2-sulfoethyl)amino]-1,3,5-triazin-2-yl]amino]methyl]-4-methyl-2-sulfophenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)

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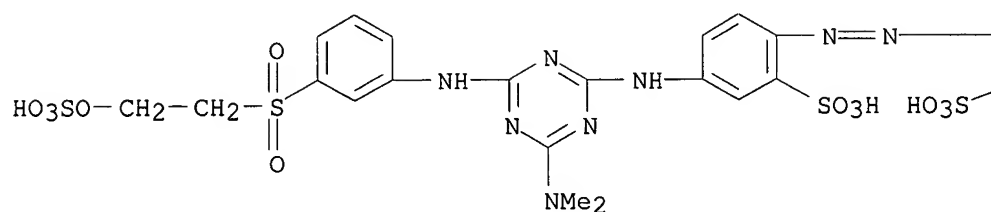
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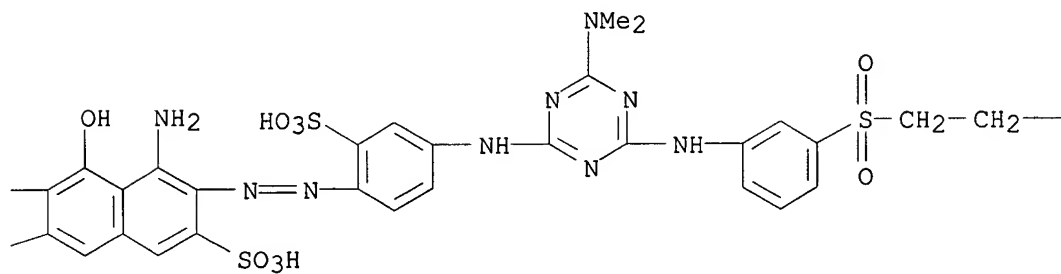
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 CN 2,7-Naphthalenedisulfonic acid, 4-amino-3,6-bis[[4-[[[4-(dimethylamino)-6-[[3-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-

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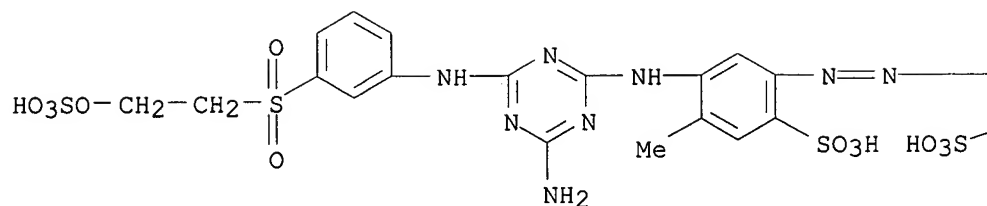
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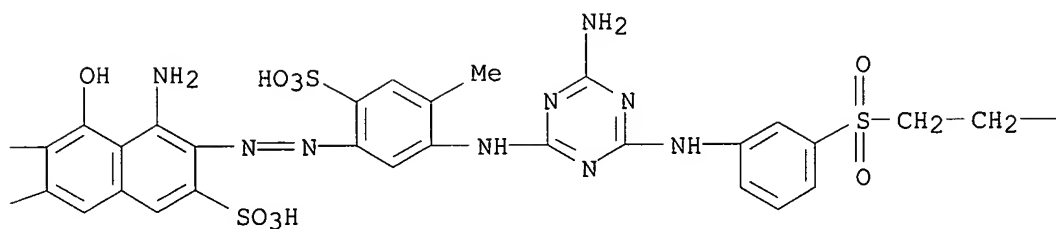
RN 112395-35-4 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-3,6-bis[[5-[[4-amino-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-4-methyl-2-sulfophenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)

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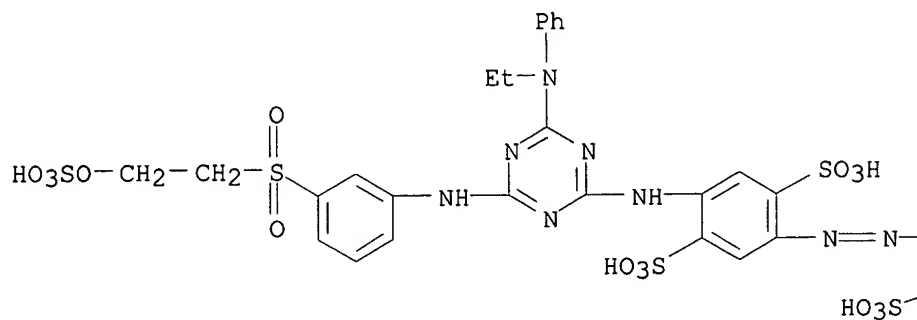


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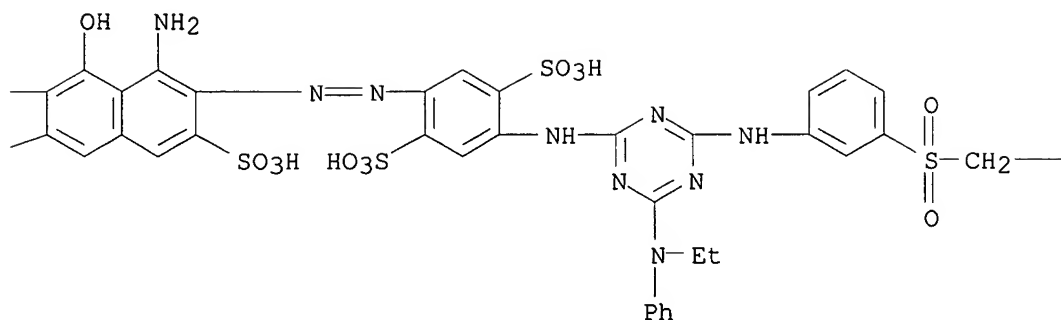
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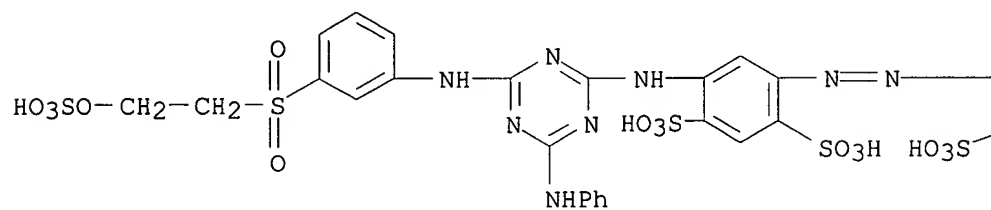


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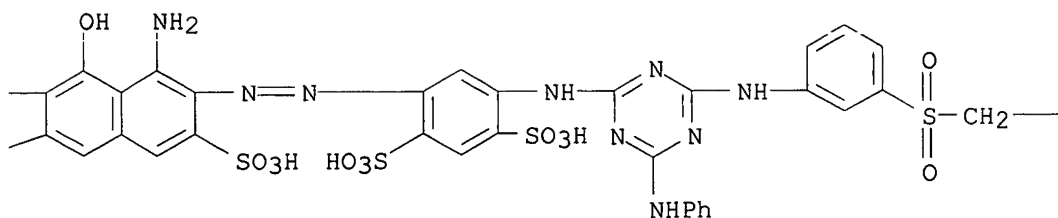
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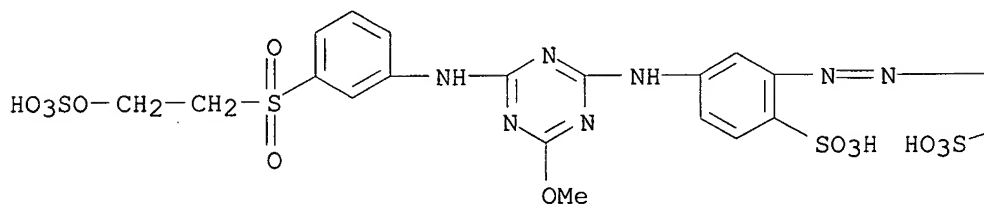


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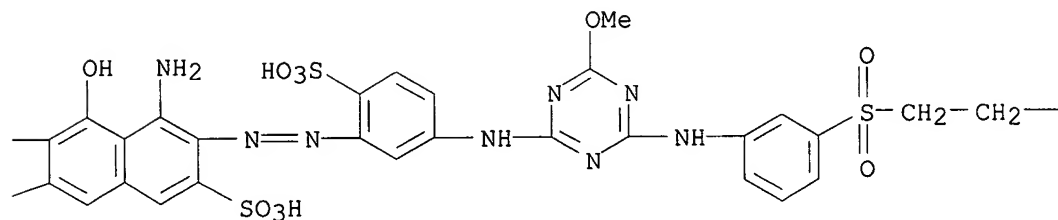
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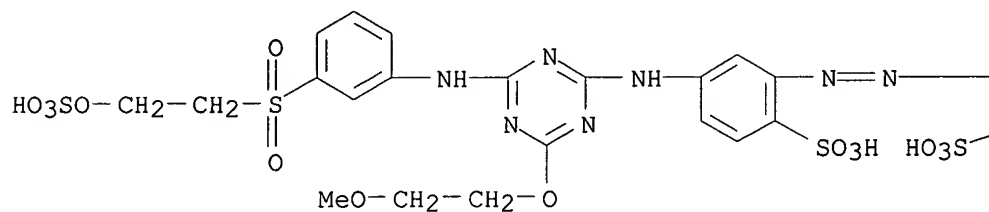


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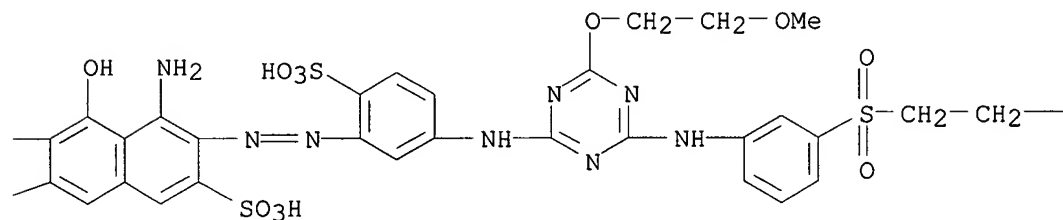
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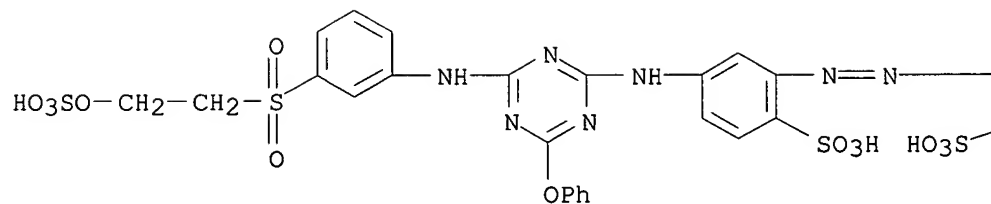


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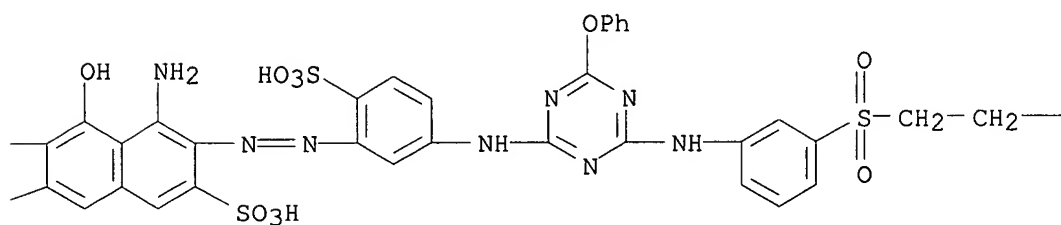
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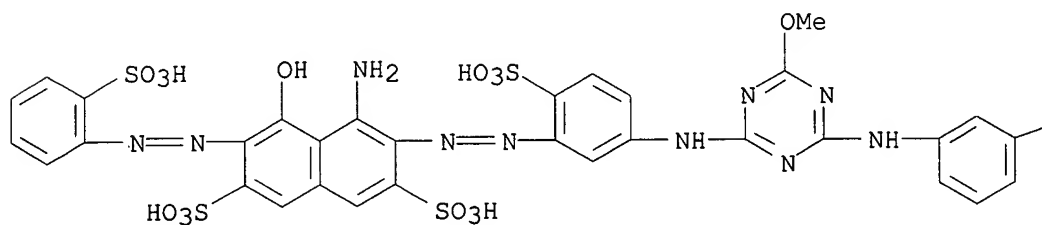


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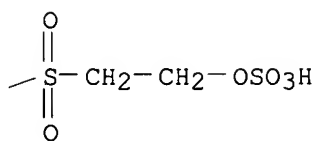
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 CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[5-[[4-methoxy-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-6-[(2-sulfophenyl)azo]- (9CI) (CA INDEX NAME)

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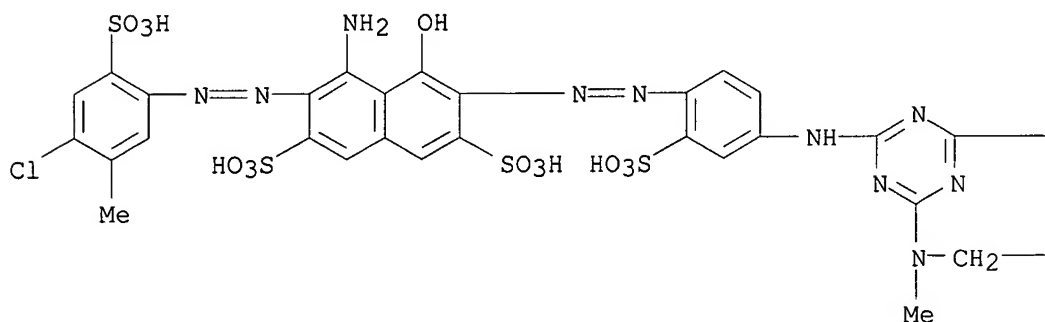


PAGE 1-B

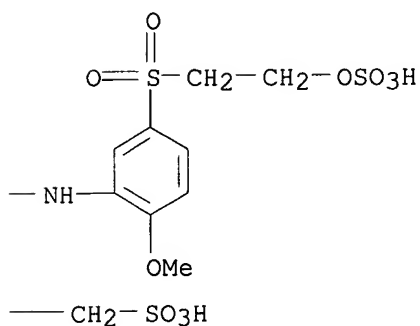


RN 112418-26-5 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[(4-chloro-5-methyl-2-sulfoxyethyl)sulfonyl]phenyl]azo]-5-hydroxy-6-[[4-[[4-[[2-methoxy-5-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-6-[methyl(2-sulfoethyl)amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A

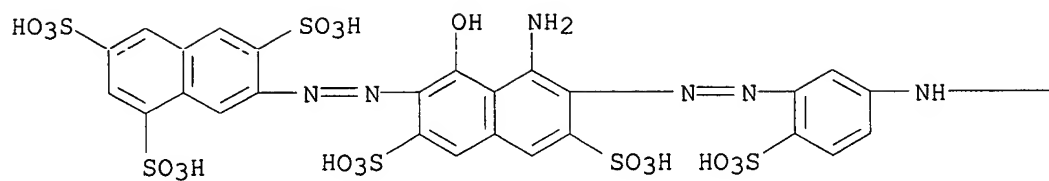


PAGE 1-B

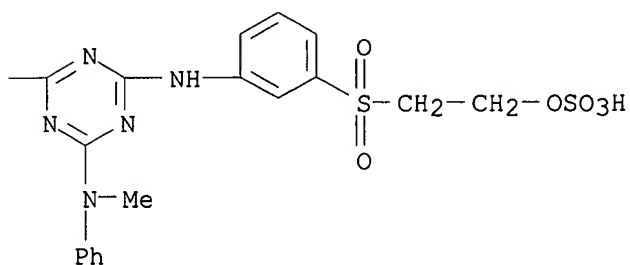


RN 112418-27-6 HCA
 CN 1,3,6-Naphthalenetrisulfonic acid, 7-[[8-amino-1-hydroxy-7-[[5-[[4-(methylphenylamino)-6-[[3-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-3,6-disulfo-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A

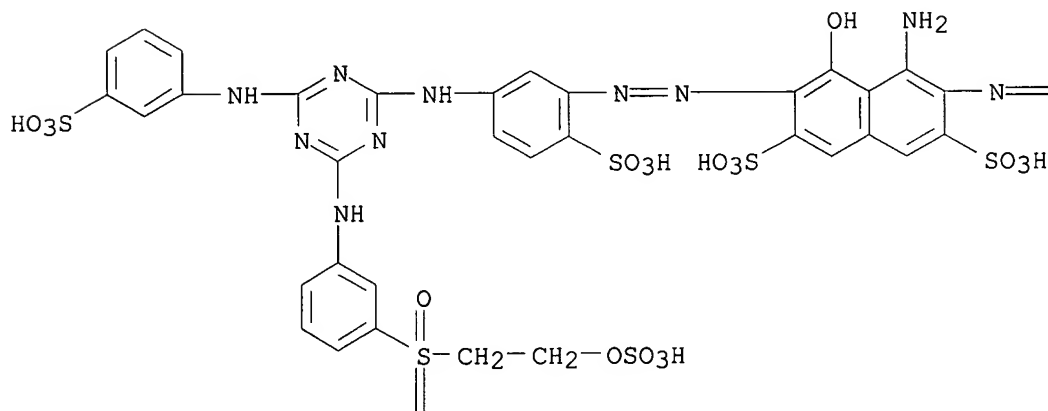


PAGE 1-B

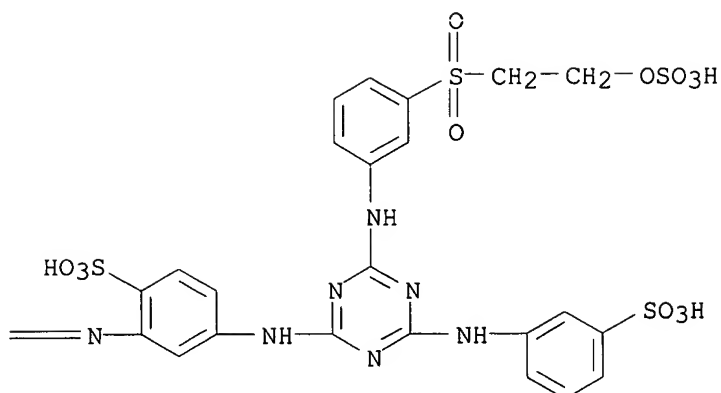


RN 112418-28-7 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3,6-bis[[2-sulfo-5-[[4-
 [[3-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-6-[(3-sulfophenyl)amino]-
 1,3,5-triazin-2-yl]amino]phenyl]azo]- (9CI) (CA INDEX NAME)

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PAGE 1-B

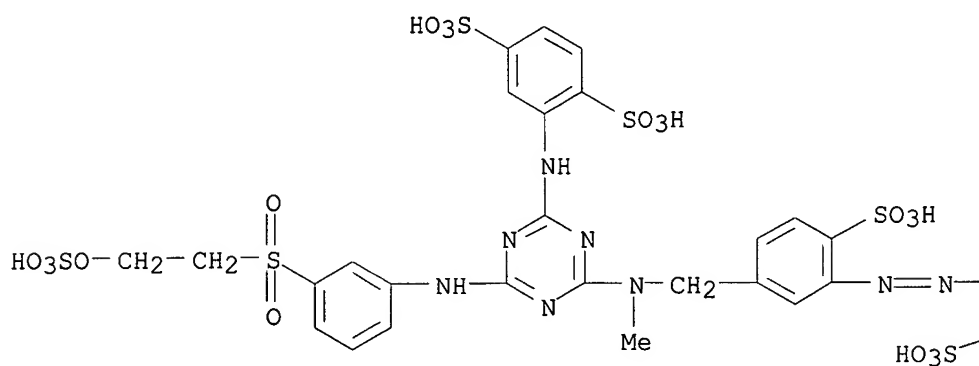


PAGE 2-A

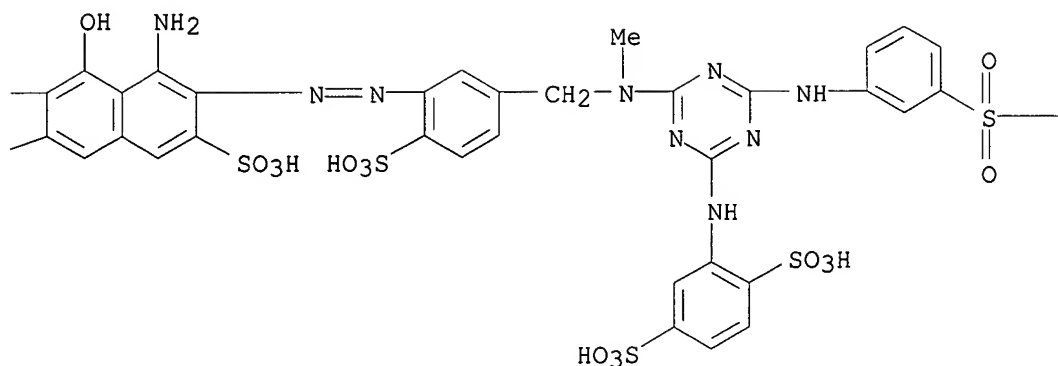


RN 112418-29-8 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-3,6-bis[[5-[[[4-[(2,5-disulfophenyl)amino]-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]methylamino]methyl]-2-sulfophenyl]azo]-5-hydroxy- (9CI)
 (CA INDEX NAME)

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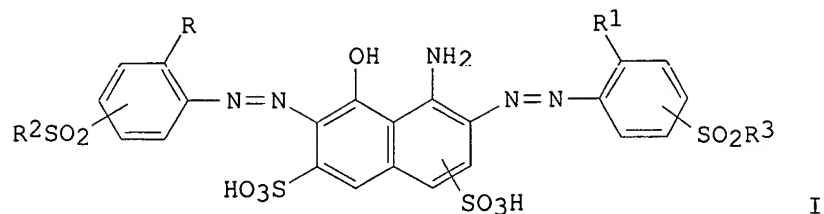


PAGE 1-C

—CH₂—CH₂—OSO₃H

L59 ANSWER 12 OF 14 HCA COPYRIGHT 2003 ACS
 103:197373 Reactive dyes and their use. Tzikas, Athanassios (Ciba-Geigy A.-G., Switz.). Eur. Pat. Appl. EP 149170 A2 19850724, 23 pp.
 DESIGNATED STATES: R: CH, DE, FR, GB, IT, LI. (German). CODEN: EPXXDW.
 APPLICATION: EP 1984-115630 19841217. PRIORITY: CH 1983-6755 19831220.

GI



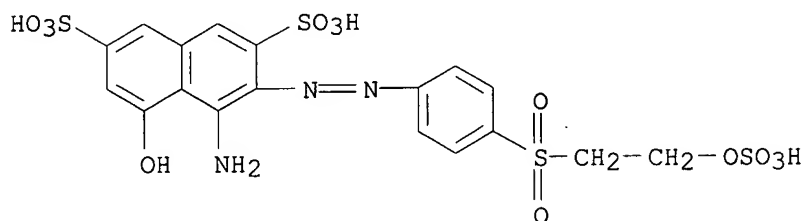
AB Disazo dyes I (R or R1 = SO3H; ~~R or R1 = H~~; R2, R3 = CH:CH2, CH2CH2R4; R4 = OSO3H, ~~SSO3H, -Cl, -O2CR5, -O3SR5~~; R5 = (un)substituted Ph) are prep'd. and used in dyeing or printing of cotton. Thus, 4-H2NC6H4SO2CH2CH2OSO3H [2494-89-5] was diazotized and coupled (pH 1-2) with 1,8,3,6-HO(H2N)C10H4(SO3H)2 [90-20-0], and the product [82572-37-0] was coupled (pH 6-7) with diazotized 4,3-H2N(HO3S)C6H3SO2CH2CH2OSO3H [42986-22-1] to give a reactive dye [99093-33-1], fast navy blue on cotton. Three other I were similarly prep'd.

IT 82572-37-0P 99093-27-3P 99093-29-5P
99093-31-9P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and coupling of, with diazotized anilines)

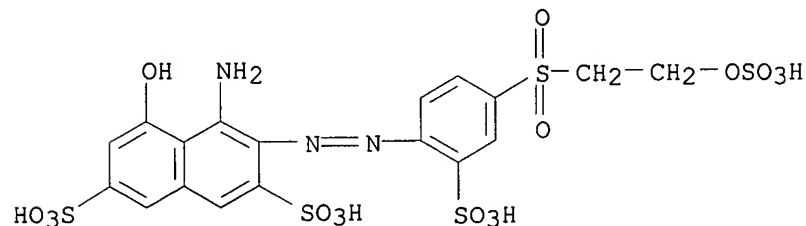
RN 82572-37-0 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



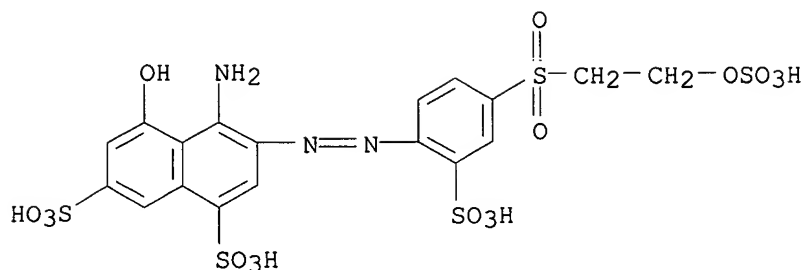
RN 99093-27-3 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[2-sulfo-4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



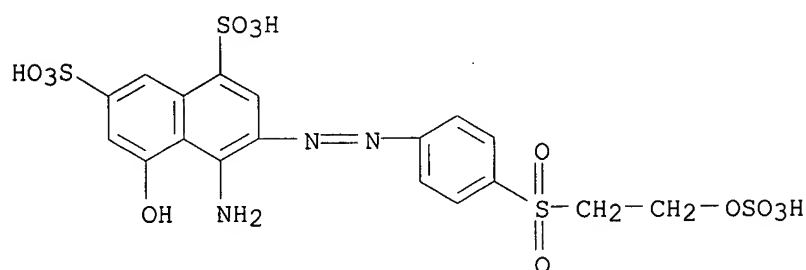
RN 99093-29-5 HCA

CN 1,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[2-sulfo-4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



RN 99093-31-9 HCA

CN 1,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



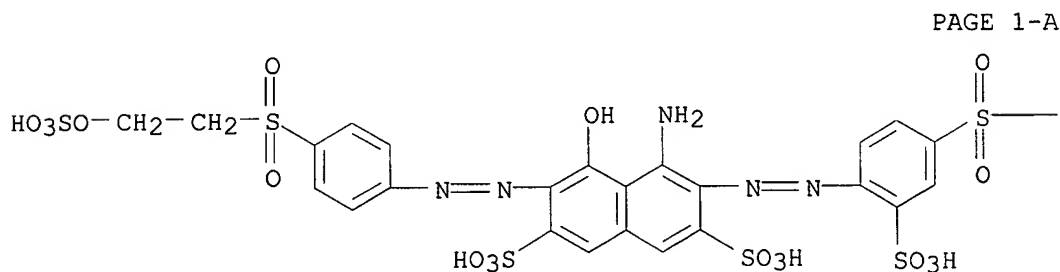
IT 99093-28-4P 99093-30-8P 99093-32-0P

99093-33-1P

RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of, as blue dye for cotton)

RN 99093-28-4 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-3-[[2-sulfo-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-, sodium salt (9CI) (CA INDEX NAME)



PAGE 1-A

● x Na

B

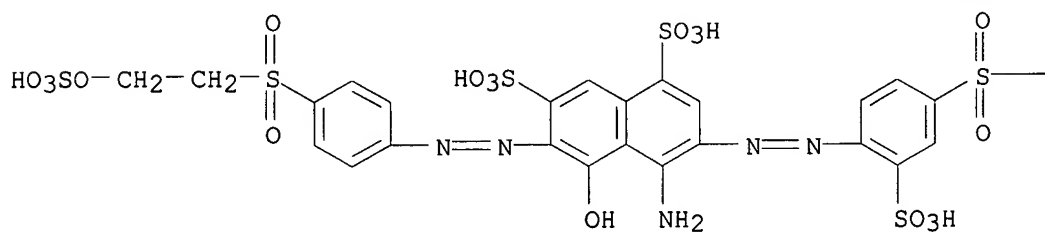
PAGE 1-B

—CH₂—CH₂—OSO₃H

RN 99093-30-8 HCA

CN 1,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-3-[[2-sulfo-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-, sodium salt (9CI) (CA INDEX NAME)

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● x Na

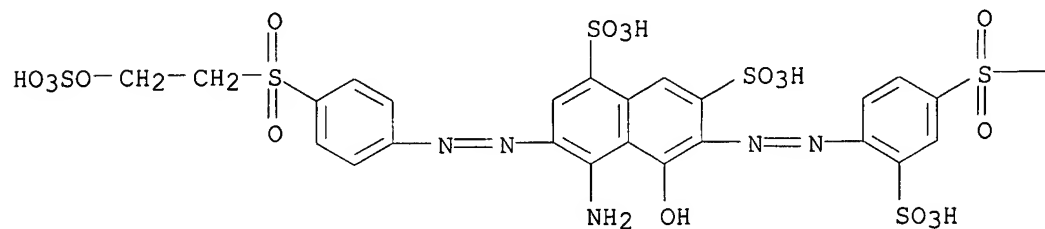
PAGE 1-B

—CH₂—CH₂—OSO₃H

RN 99093-32-0 HCA

CN 1,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-6-[[2-sulfo-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-, sodium salt (9CI) (CA INDEX NAME)

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x Na

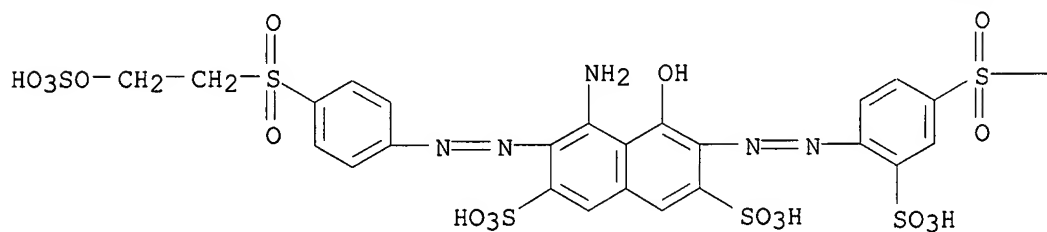
PAGE 1-B

—CH₂—CH₂—OSO₃H

RN 99093-33-1 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-6-[[2-sulfo-4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-, sodium salt (9CI) (CA INDEX NAME)

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●x Na

PAGE 1-B

—CH₂—CH₂—OSO₃H

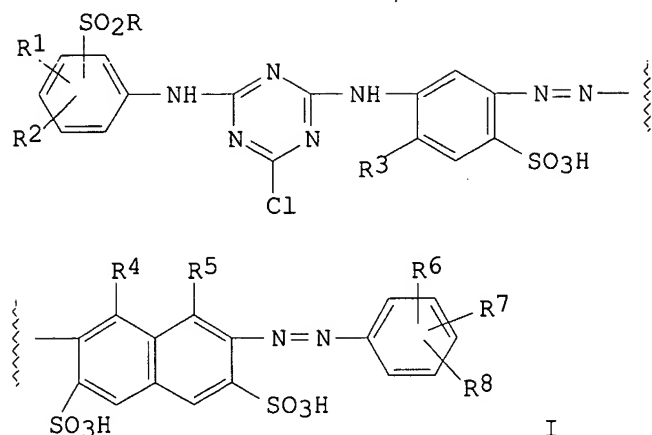
L59 ANSWER 13 OF 14 HCA COPYRIGHT 2003 ACS

101:193671 Bifunctional reactive dyes. (Sumitomo Chemical Co., Ltd., Japan).

Jpn. Kokai Tokkyo Koho JP 59133261 A2 19840731 Showa, 6 pp.

(Japanese). CODEN: JKXXAF. APPLICATION: JP 1983-7614 19830119.

GI



AB The title dyes of free-acid form I [R = vinyl, CH₂CH₂R₉; R₁, R₂ = H, Me, MeO, Cl, CO₂H, SO₃H; R₃ = H, SO₃H, Me; R₄, R₅ = OH, NH₂ (R₄ .noteq. R₅); R₆, R₇, R₈ = H, Cl, Me, MeO, SO₃H, CO₂H; R₉ = anionic leaving group excluding sulfato] were prepd. and used for dyeing cotton in fast navy blue shades. Thus, aniline-4-sulfonic acid [121-57-3] was diazotized, coupled with 1-amino-8-hydroxynaphthalene-3,6-disulfonic acid mono-Na salt [5460-09-3], and salted. Cyanuric chloride [108-77-0] was condensed with m-phenylenediaminesulfonic acid [88-63-1] and then with m-(2-thiosulfatoethylsulfonfyl)aniline [4726-00-5], and the resulting condensate was diazotized, coupled with the above salted product, and salted to give I (R = CH₂CH₂SSO₃H, R₁ = R₂ = R₃ = R₆ = R₇ = H, R₄ = OH, R₅ = NH₂, R₈ = 4-SO₃H; Na salt) [92815-47-9].

IT	92815-29-7	92815-30-0	92815-31-1
	92815-32-2	92815-33-3	92815-38-8
	92815-39-9	92815-41-3	92815-42-4
	92815-43-5	92815-44-6	92815-45-7
	92815-46-8	92815-47-9	

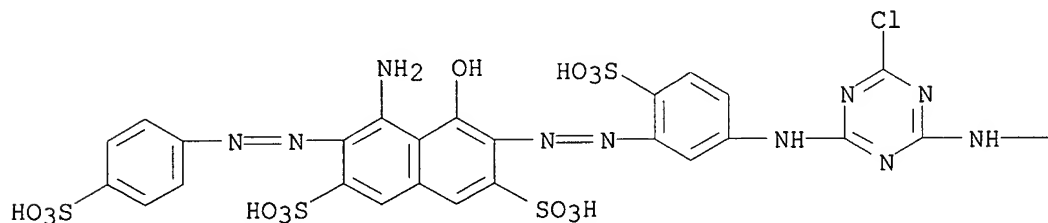
RL: USES (Uses)

(dye, navy blue, for cotton)

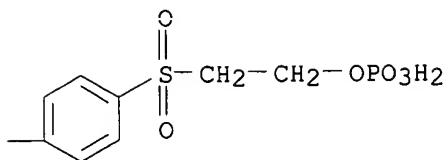
RN 92815-29-7 HCA

2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-chloro-6-[[4-[[2-(phosphonooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-5-hydroxy-3-[(4-sulfophenyl)azo]- (9CI) (CA INDEX NAME)

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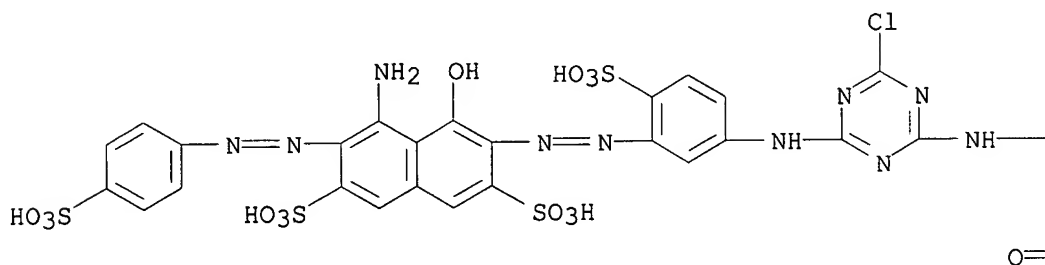


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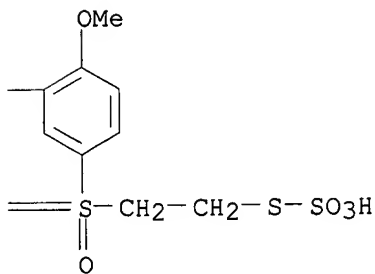


RN 92815-30-0 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-chloro-6-[[2-methoxy-5-[[2-(sulfothio)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-5-hydroxy-3-[(4-sulfophenyl)azo]- (9CI) (CA INDEX NAME)

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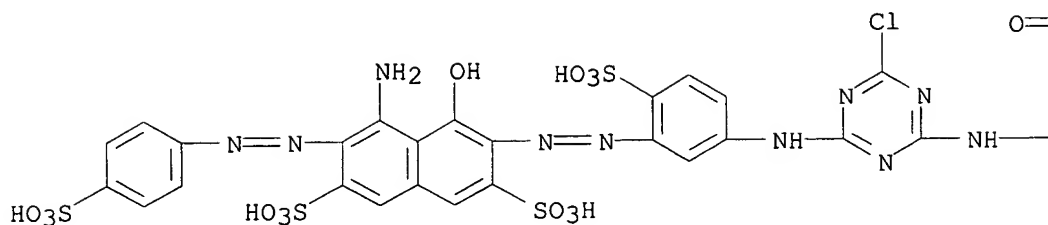


PAGE 1-B

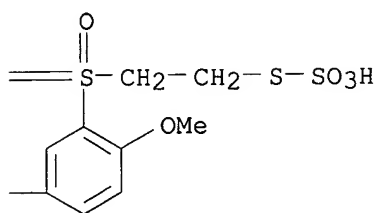


RN 92815-31-1 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-chloro-6-[[4-methoxy-3-[[2-(sulfothio)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-5-hydroxy-3-[(4-sulfophenyl)azo]- (9CI) (CA INDEX NAME)

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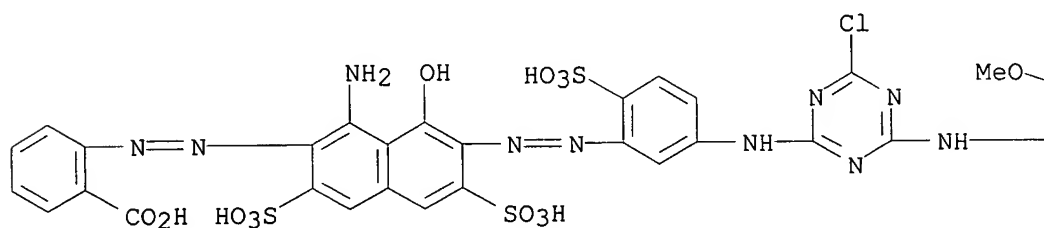


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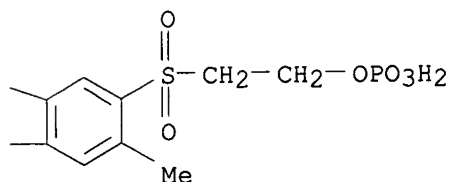


RN 92815-32-2 HCA
 CN Benzoic acid, 2-[[1-amino-7-[[5-[[4-chloro-6-[[2-methoxy-5-methyl-4-[[2-(phosphonooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfo-phenyl]azo]-8-hydroxy-3,6-disulfo-2-naphthalenyl]azo]-9-chloro-4-methoxy-2-methyl-5-sulfonylbenzoic acid (9CI) (CA INDEX NAME)

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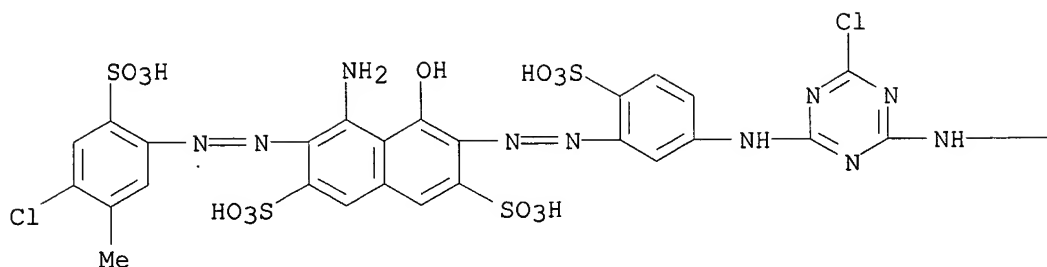


PAGE 1-B

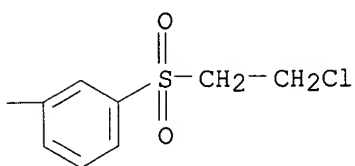


RN 92815-33-3 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-chloro-6-[[3-[(2-chloroethyl)sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfo-phenyl]azo]-3-[(4-chloro-5-methyl-2-sulfo-phenyl)azo]-5-hydroxy- (9CI) (CA INDEX NAME)

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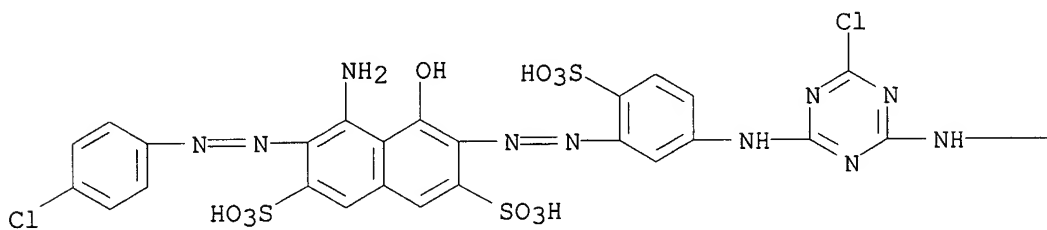
PAGE 1-B



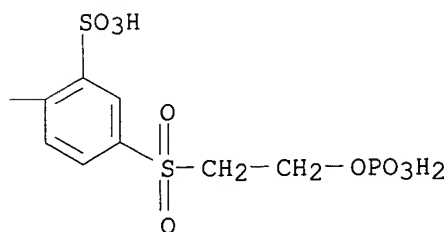
RN 92815-38-8 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[4-chlorophenyl]azo]-6-[[5-[[4-chloro-6-[[4-[[2-(phosphonooxy)ethyl]sulfonyl]-2-sulfophenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)

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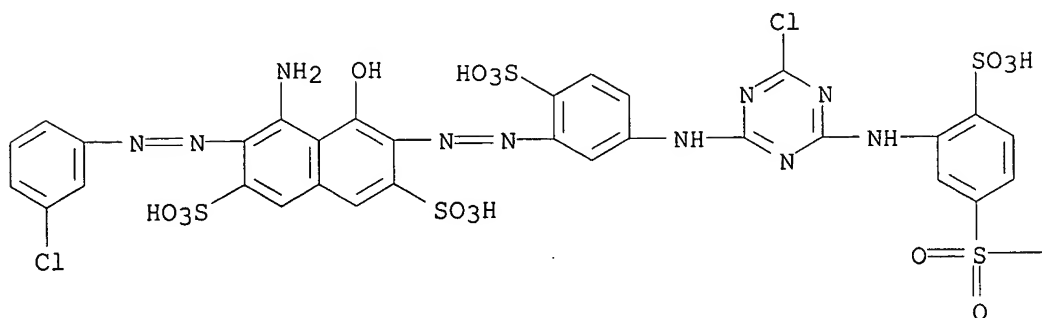


RN 92815-39-9 HCA

CN 2,7-Naphthalenedisulfonic acid, 3-[[5-[[4-[[5-[[2-

(acetyloxy)ethyl]sulfonyl]-2-sulfophenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-5-amino-6-[(3-chlorophenyl)azo]-4-hydroxy-
(9CI) (CA INDEX NAME)

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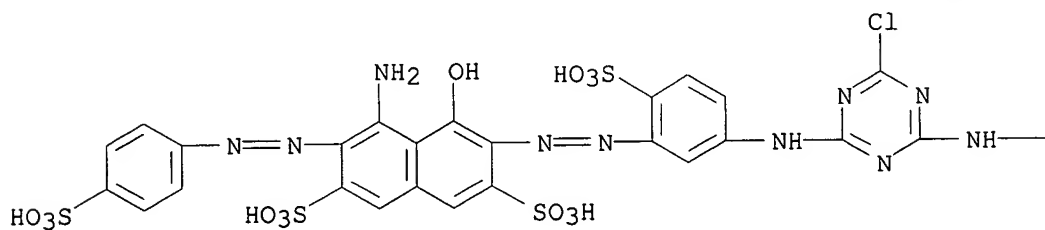


PAGE 1-B

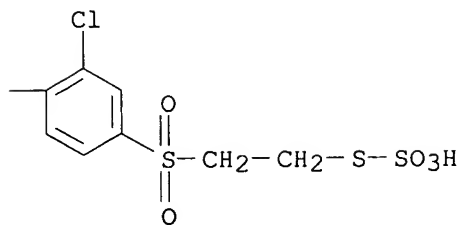
—CH₂—CH₂—OAc

RN 92815-41-3 HCA
CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-chloro-6-[[2-chloro-4-[[2-(sulfothio)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-5-hydroxy-3-[(4-sulfophenyl)azo]- (9CI) (CA INDEX NAME)

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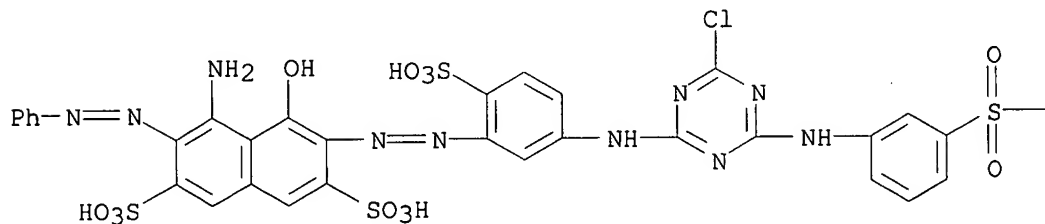
PAGE 1-B



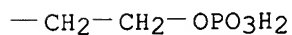
RN 92815-42-4 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-chloro-6-[[3-[[2-(phosphonooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-5-hydroxy-3-(phenylazo)- (9CI) (CA INDEX NAME)

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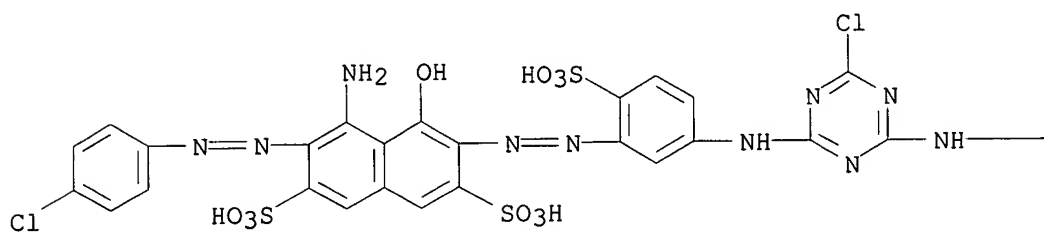
PAGE 1-B



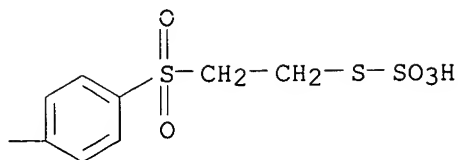
RN 92815-43-5 HCA

CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[(4-chlorophenyl)azo]-6-[[5-[[4-chloro-6-[[4-[[2-(sulfothio)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)

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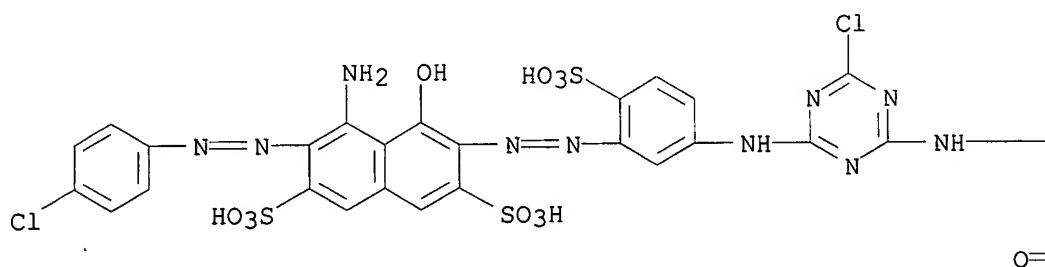


PAGE 1-B

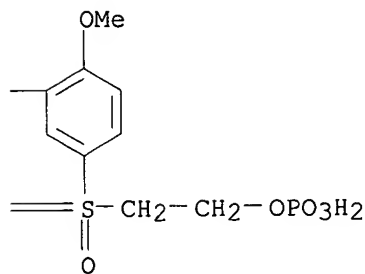


RN 92815-44-6 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-chloro-6-[[2-methoxy-5-[[2-(phosphonooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]azo]-3-[(4-chlorophenyl)azo]-5-hydroxy- (9CI) (CA INDEX NAME)

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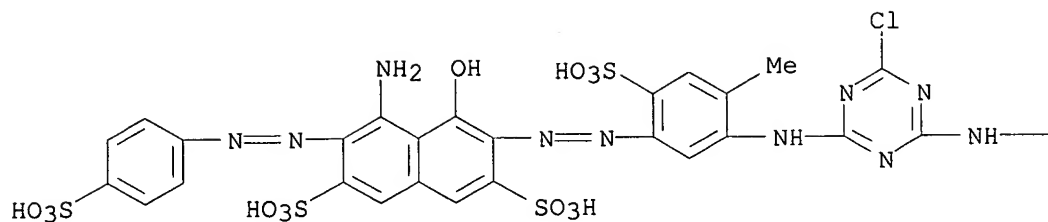


PAGE 1-B



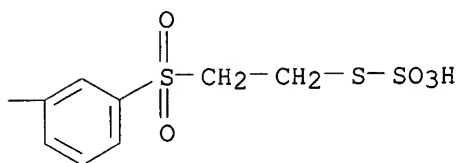
RN 92815-45-7 HCA
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-chloro-6-[[3-[[2-(sulfothio)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-4-methyl-2-sulfophenyl]azo]-5-hydroxy-3-[(4-sulfophenyl)azo]-, pentasodium salt (9CI) (CA INDEX NAME)

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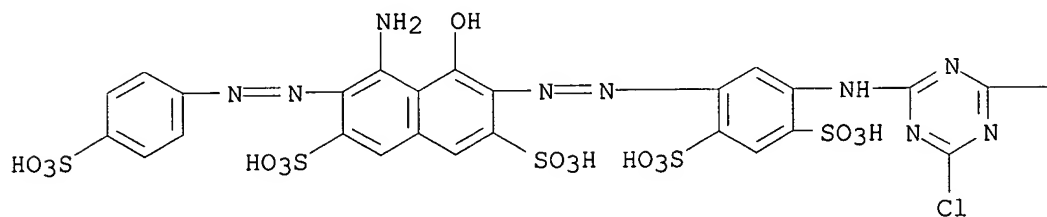
●5 Na

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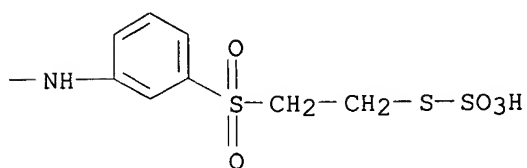
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 CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-chloro-6-[[3-[[2-(sulfothio)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2,4-disulfophenyl]azo]-5-hydroxy-3-[(4-sulfophenyl)azo]-, hexasodium salt (9CI) (CA INDEX NAME)

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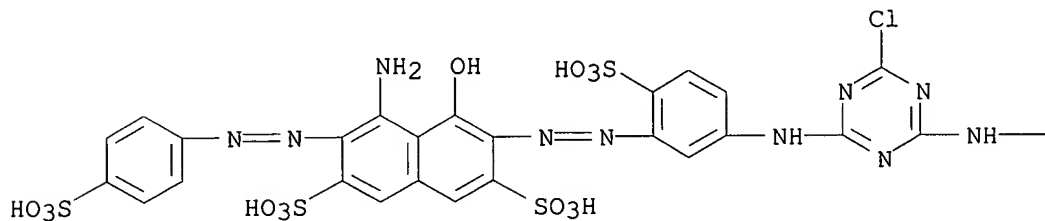
●6 Na

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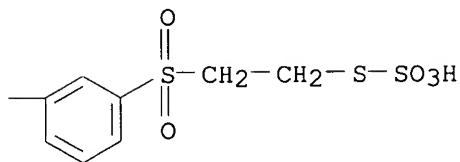
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 (CA INDEX NAME)

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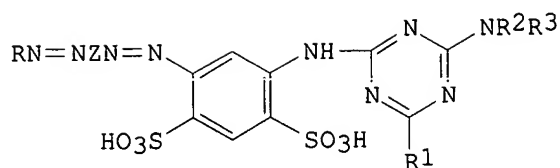


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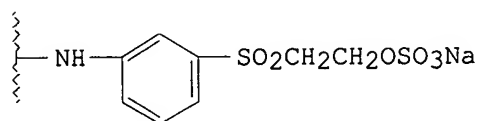
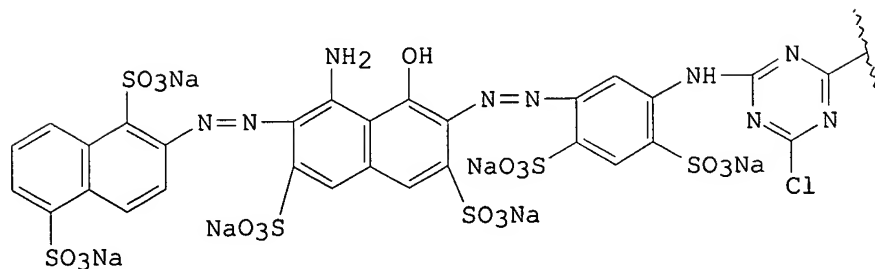
PAGE 1-B



L59 ANSWER 14 OF 14 HCA COPYRIGHT 2003 ACS
 98:199821 Fiber-reactive disazo dyes. (Sumitomo Chemical Co., Ltd., Japan).
 Jpn. Kokai Tokkyo Koho JP 57167462 A2 **19821015** Showa, 10 pp.
 (Japanese). CODEN: JKXXAF. APPLICATION: JP 1981-52626 19810407.
 GI



I



III

AB Fiber-reactive dyes of free-acid form I (R = optionally substituted phenyl or naphthyl; R1 = F, Cl; R2 = H, Cl-4 alkyl; R3 = phenyl or naphthyl contg. SO2CH2CH2Cl, SO2CH:CH2, SO2CH2CH2OSO3H, SO2CH2CH2OPO3H2, or NR4SO2CH2CH2OSO3H substituent; R4 = H, Me, Et; Z = 1-amino-8-hydroxynaphthalenemono- or disulfonic acid residue) were prep'd. and used for dyeing cellulosic fibers in deep blue shades. For example, 2-aminonaphthalene-1,5-disulfonic acid [117-62-4] was diazotized, coupled with H acid [90-20-0], and salted to give the monoazo comp'd. Na salt (II) [72705-44-3]. cyanuric chloride [108-77-0] was condensed with 2,4-diamino-1,5-benzenedisulfonic acid [137-50-8] and then with m-H2NC6H4SO2CH2CH2OSO3H [2494-88-4], and the resulting product [85171-67-1] was diazotized, coupled with II, and salted to give blue dye III [85171-66-0].

IT 85160-06-1 85171-25-1 85171-26-2
 85171-27-3 85171-28-4 85171-29-5
 85171-30-8 85171-31-9 85171-32-0
 85171-33-1 85171-34-2 85171-35-3
 85171-38-6 85171-39-7 85171-40-0
 85171-41-1 85171-42-2 85171-43-3
 85171-44-4 85171-45-5 85171-46-6
 85171-47-7 85171-48-8 85171-49-9
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RL: USES (Uses)

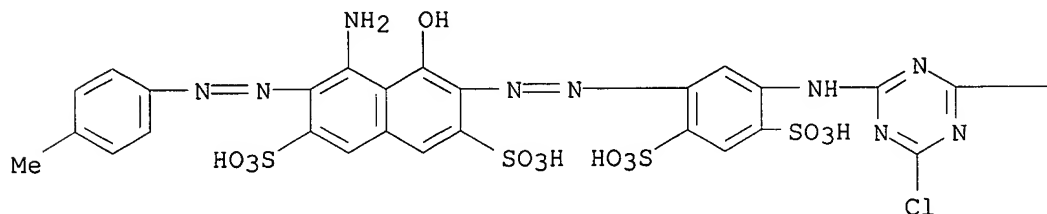
(dye, for cellulose fibers, manuf. of)

RN 85160-06-1 HCA

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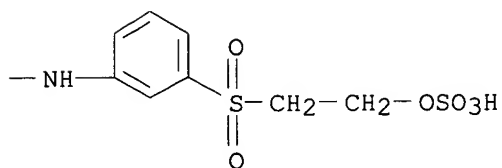
disulfophenyl]azo]-5-hydroxy-3-[(4-methylsulfonyl)azo]-, hexasodium salt (9CI) (CA INDEX NAME)

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D1-SO₃H

● 6 Na

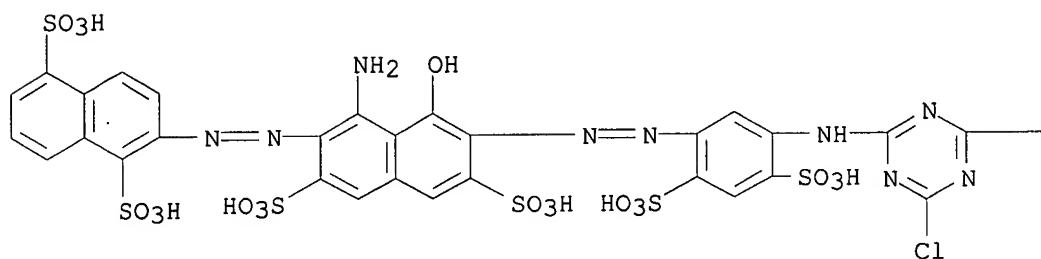
PAGE 1-B



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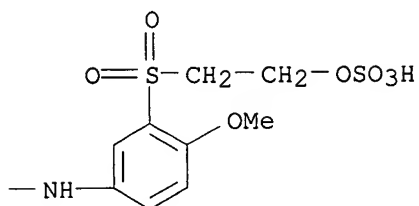
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● 7 Na

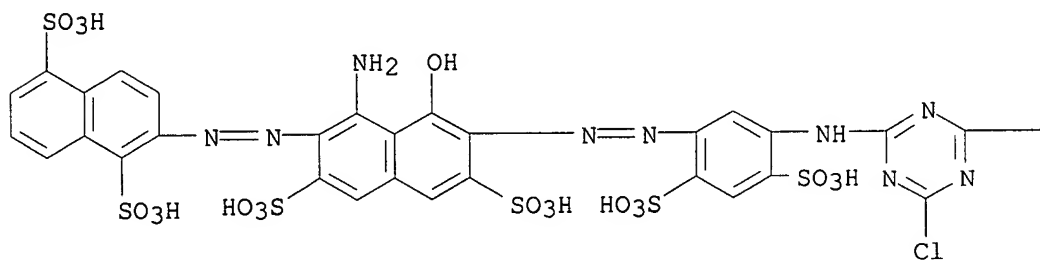
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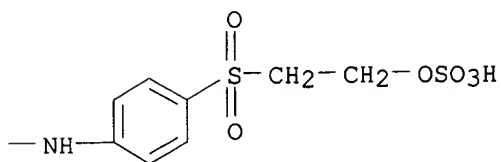
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● 7 Na

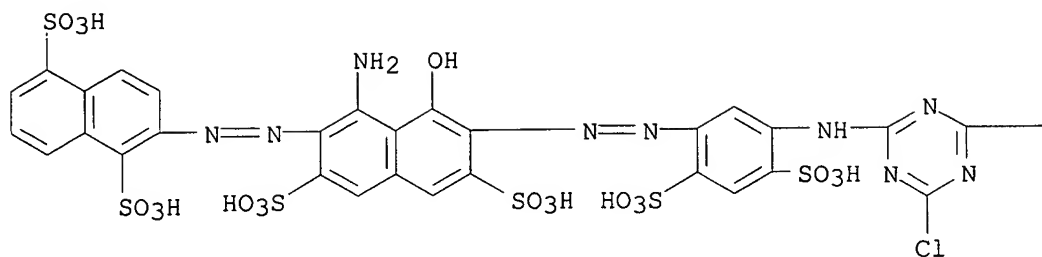
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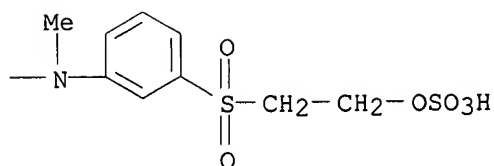
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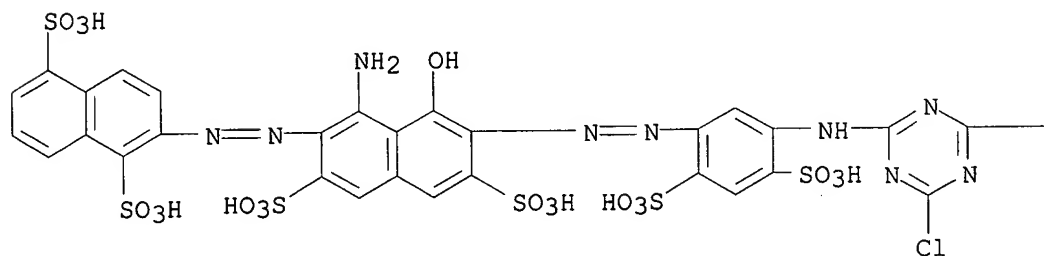
● 7 Na

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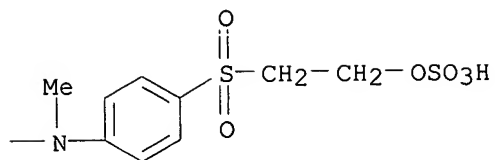
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● 7 Na

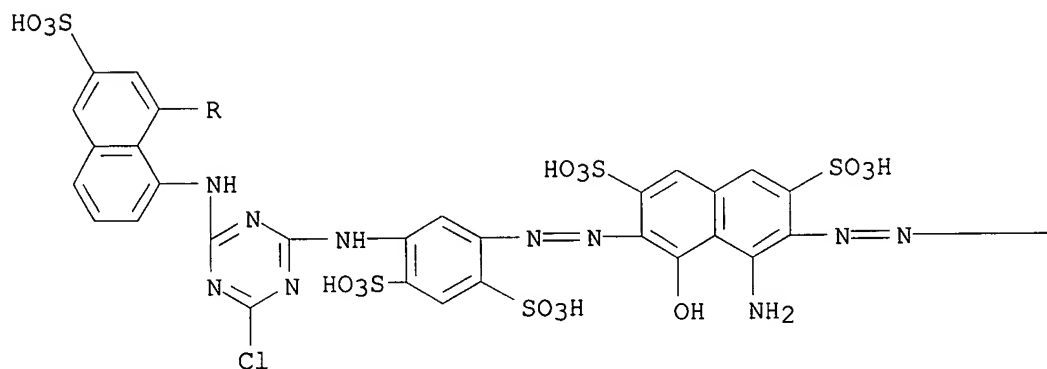
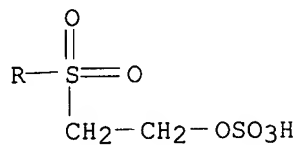
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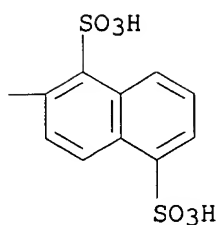
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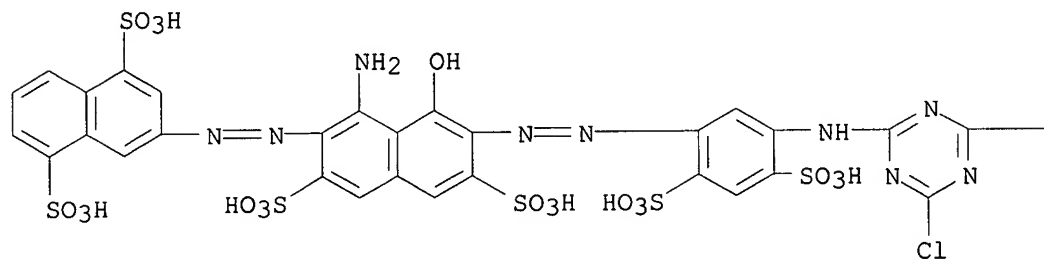
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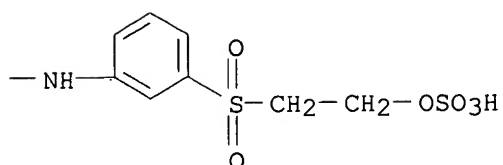
CN 1,5-Naphthalenedisulfonic acid, 3-[[[1-amino-7-[[[5-[[4-chloro-6-[[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2,4-disulphophenyl]azo]-8-hydroxy-3,6-disulfo-2-naphthalenyl]azo]-, heptasodium salt (9CI) (CA INDEX NAME)

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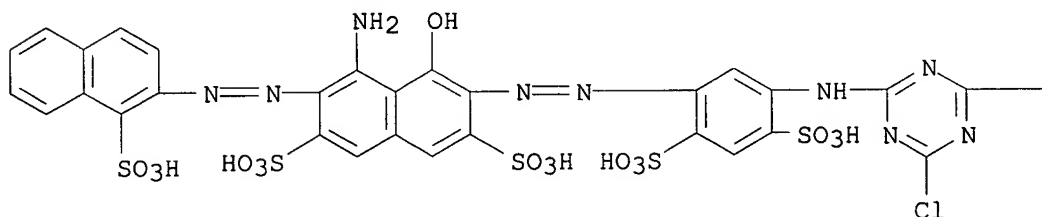
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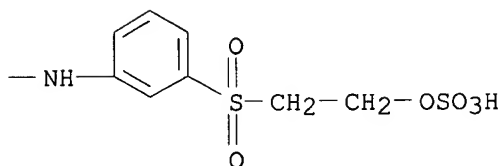
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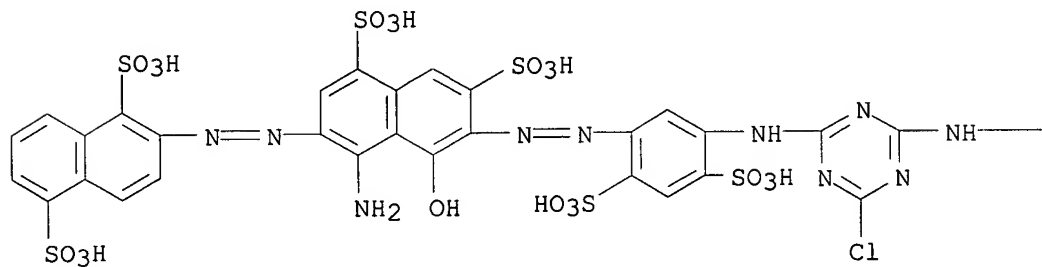
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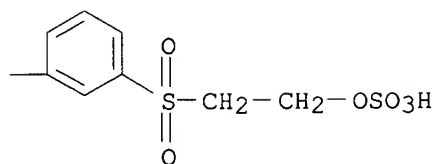
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 CN 1,5-Naphthalenedisulfonic acid, 2-[[[1-amino-7-[[5-[[4-chloro-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2,4-disulfophenyl]azo]-8-hydroxy-4,6-disulfo-2-naphthalenyl]azo]-, heptasodium salt (9CI) (CA INDEX NAME)

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● 7 Na

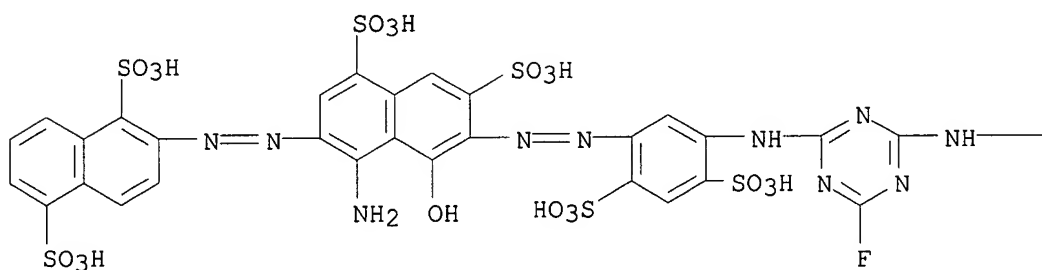
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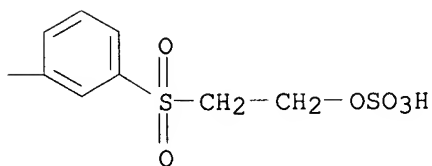
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● 7 Na

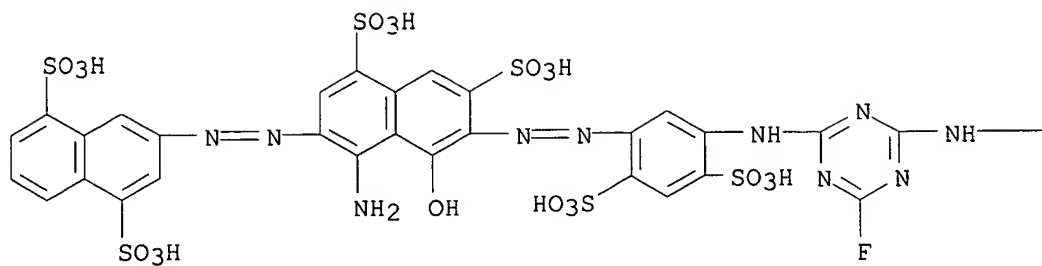
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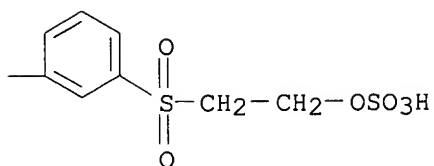
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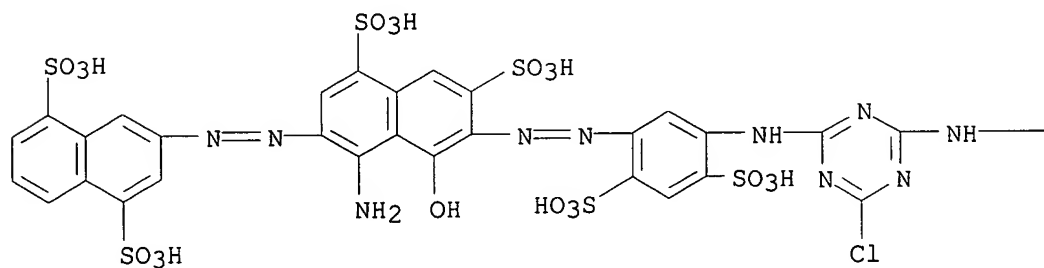
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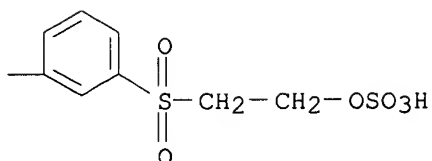
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●7 Na

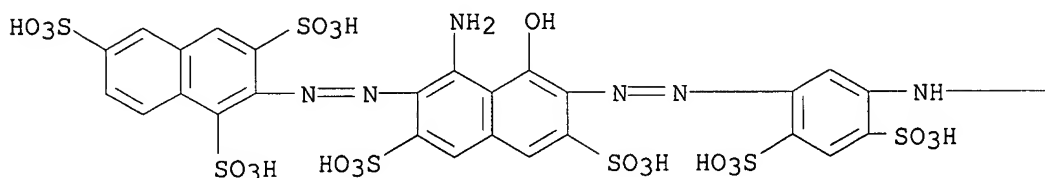
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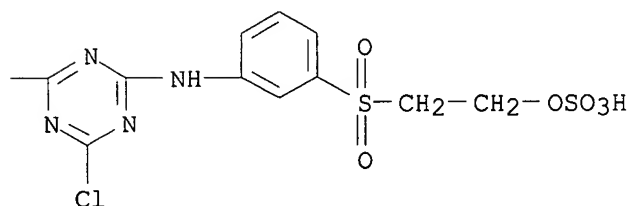
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● 8 Na

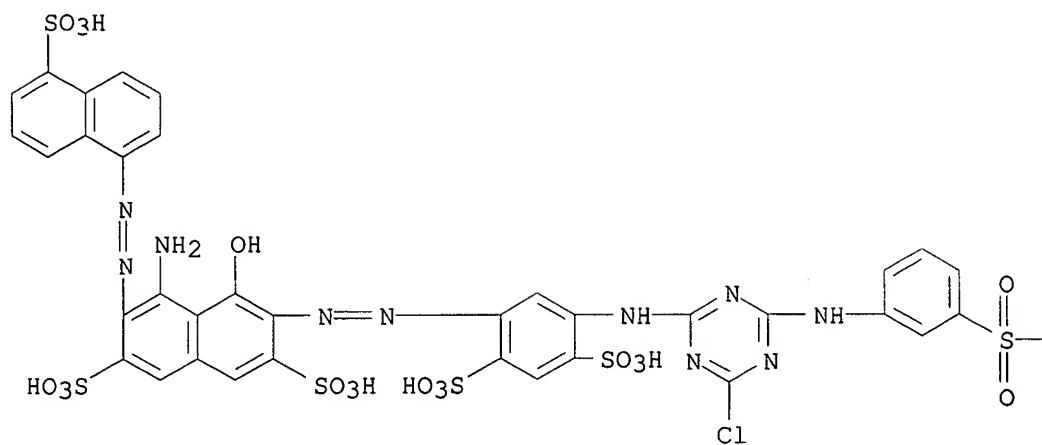
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RN 85171-39-7 HCA

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● 6 Na

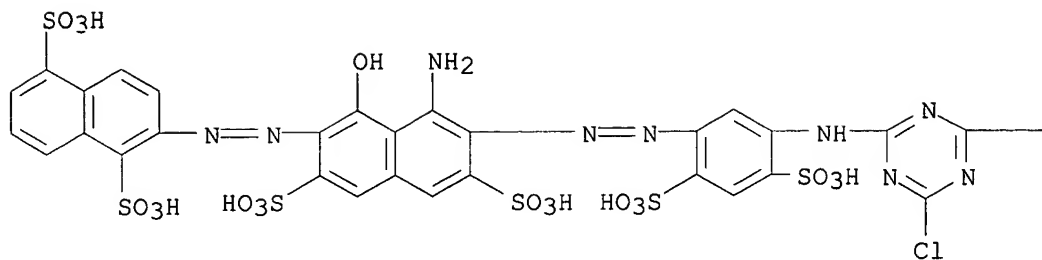
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—CH₂—CH₂—OSO₃H

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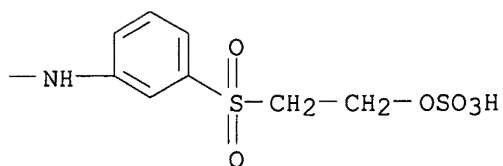
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● 7 Na

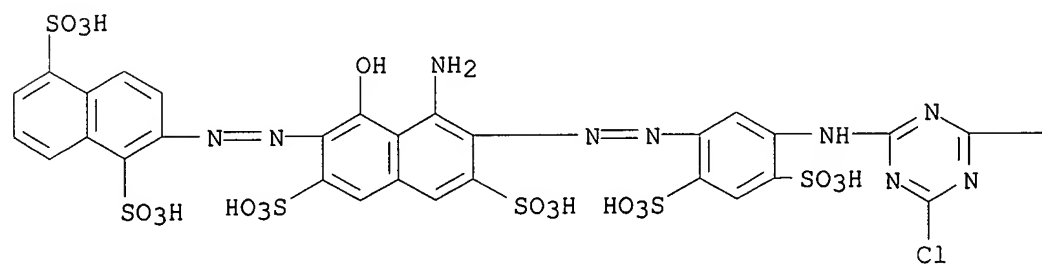
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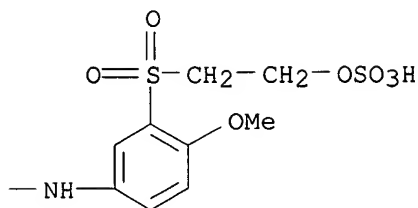
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● 7 Na

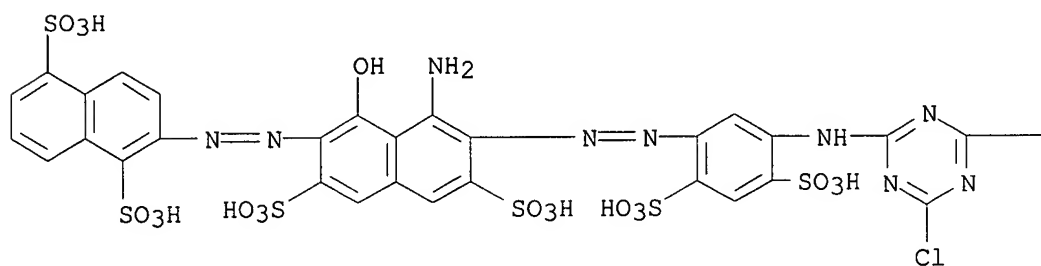
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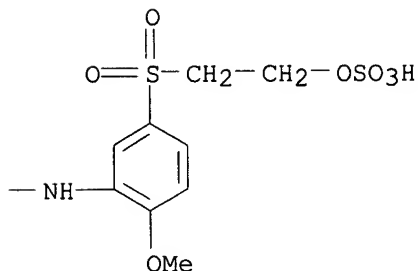
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● 7 Na

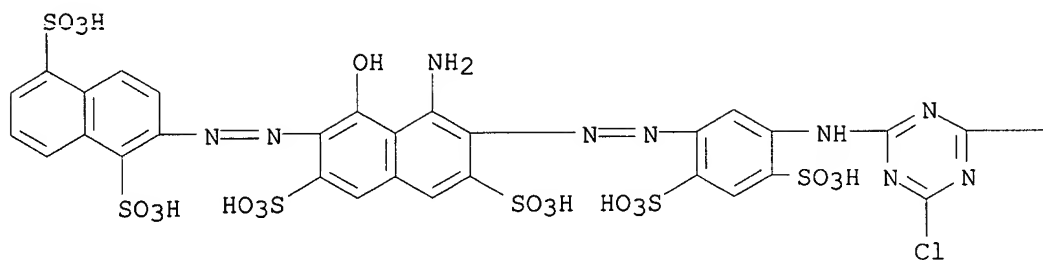
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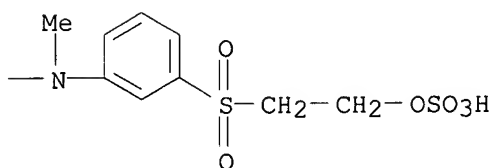
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● 7 Na

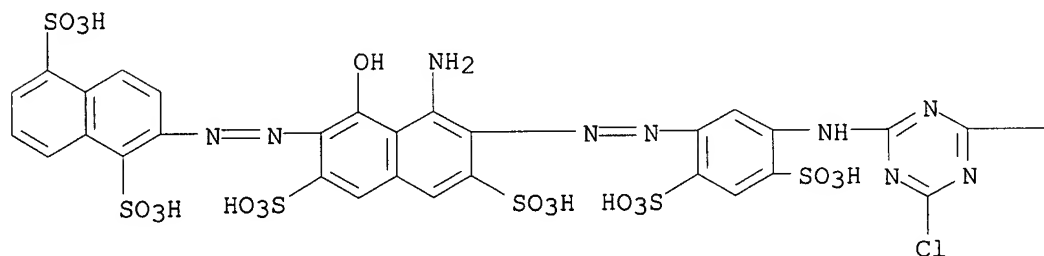
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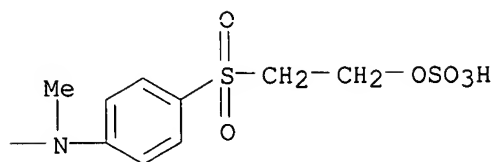
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● 7 Na

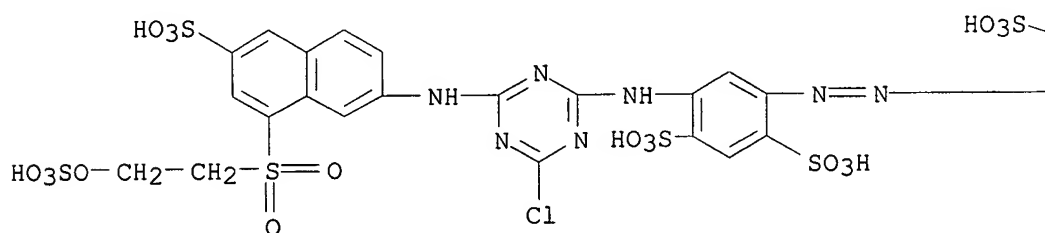
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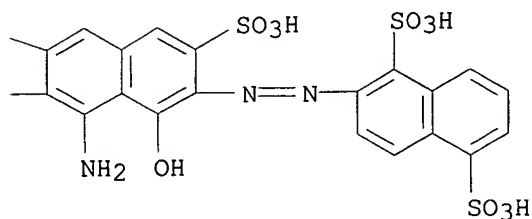
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● 8 Na

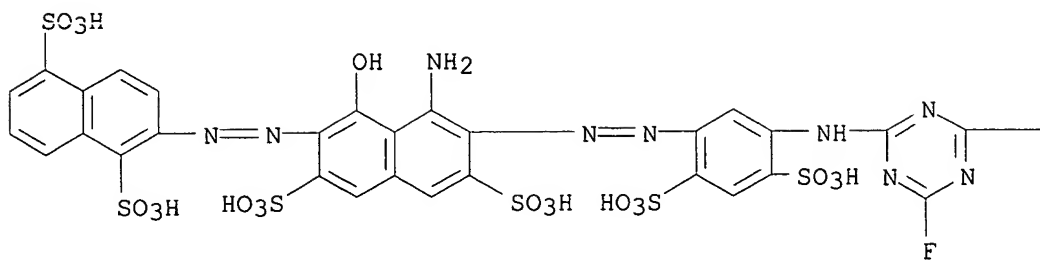
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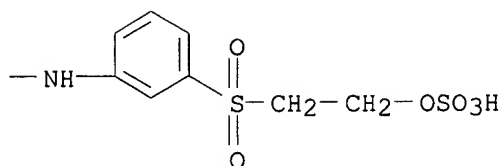
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●7 Na

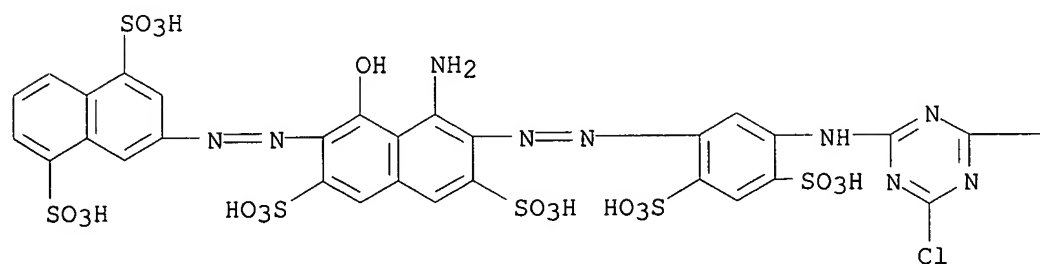
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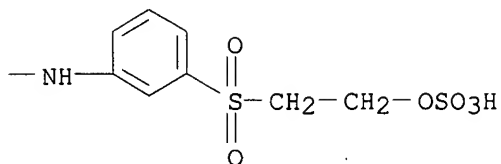
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●7 Na

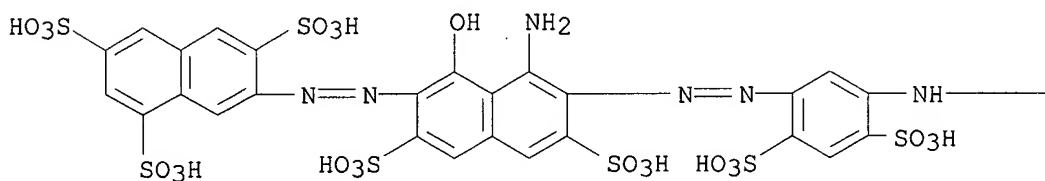
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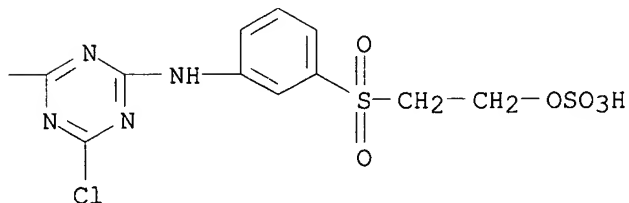
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● 8 Na

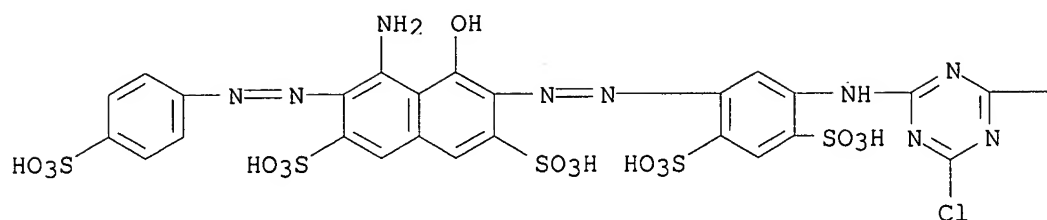
PAGE 1-B



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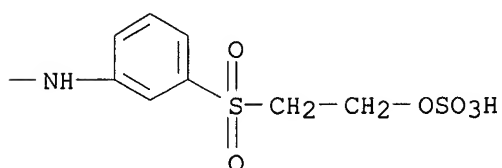
CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[4-chloro-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2,4-disulfophenyl]azo]-5-hydroxy-3-[(4-sulfophenyl)azo]-, hexasodium salt (9CI) (CA INDEX NAME)

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● 6 Na

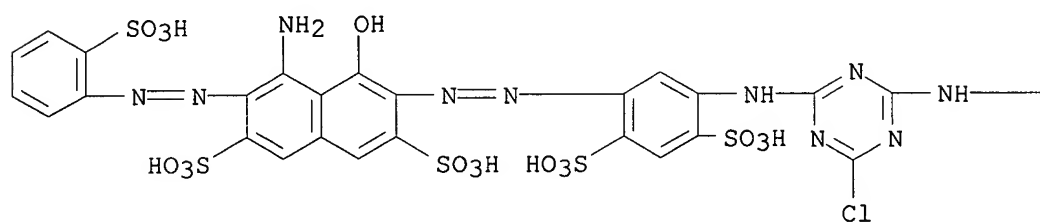
PAGE 1-B



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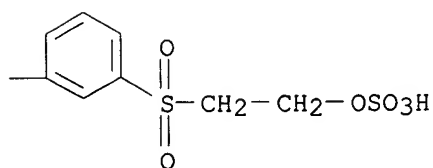
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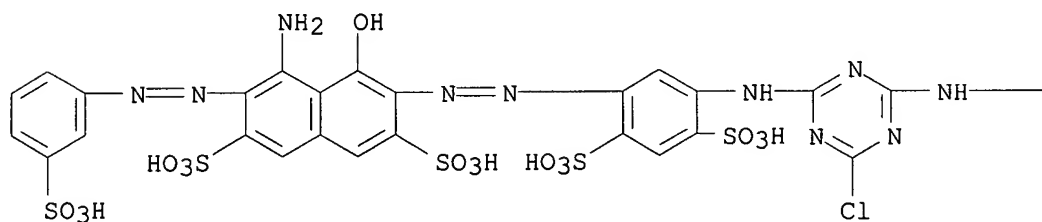
● 6 Na

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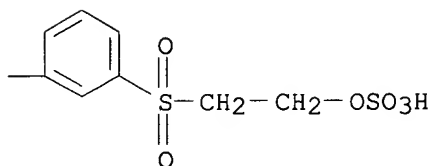
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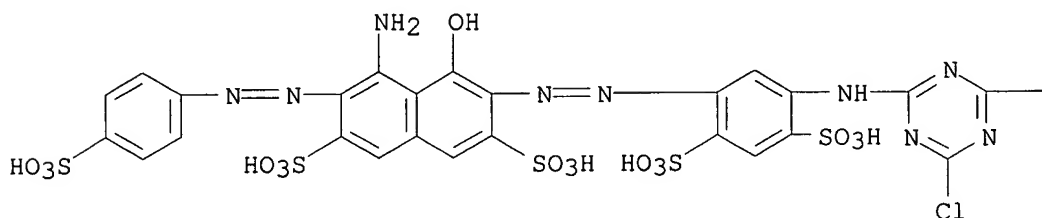
● 6 Na

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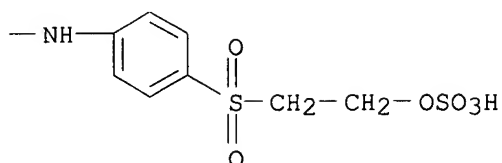
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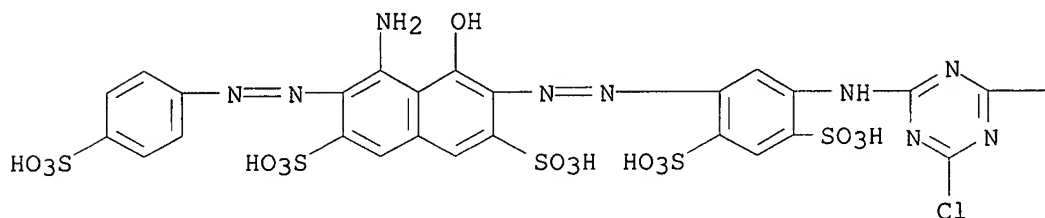
● 6 Na

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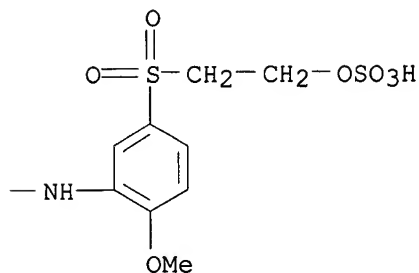
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 (9CI) (CA INDEX NAME)

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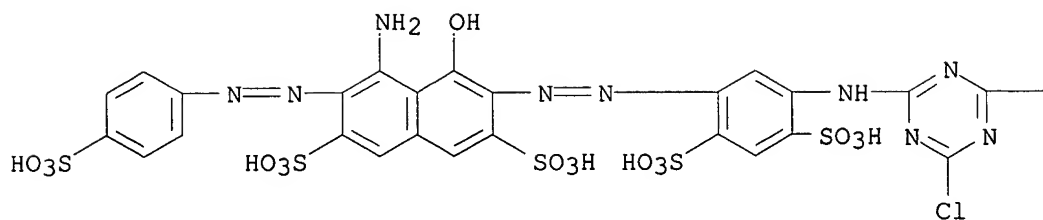
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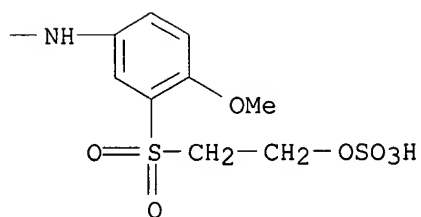
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 (9CI) (CA INDEX NAME)

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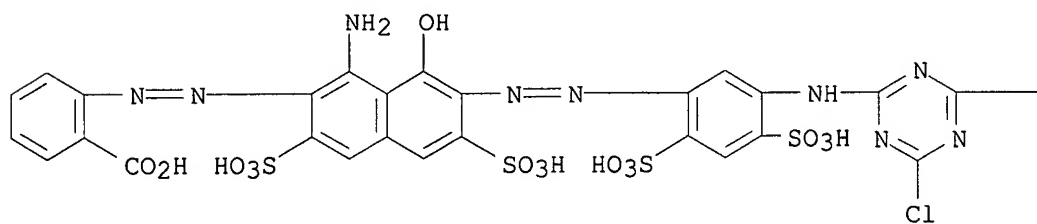
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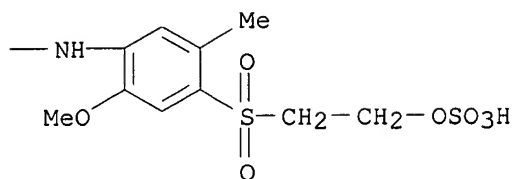
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● 6 Na

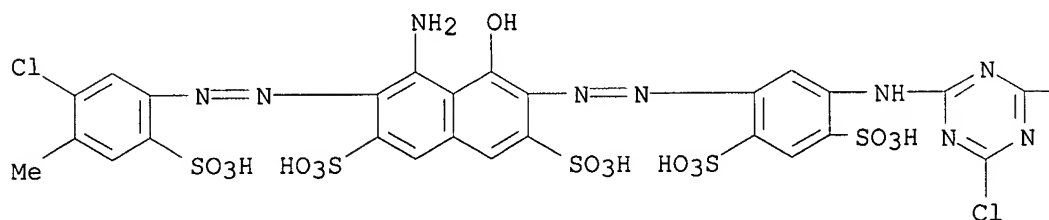
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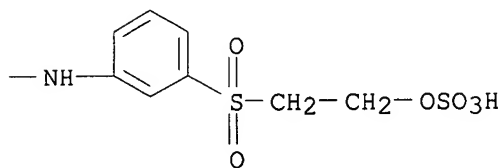
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● 6 Na

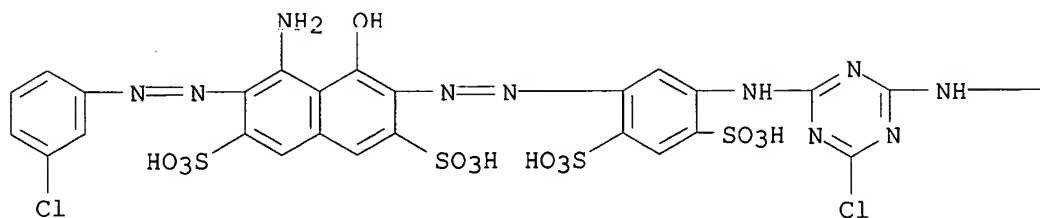
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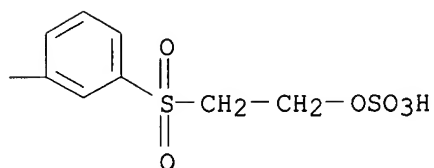
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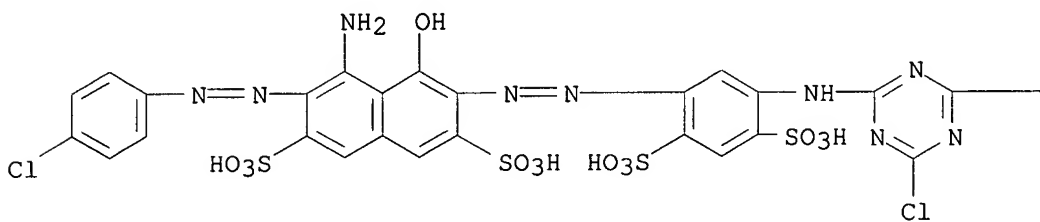
● 5 Na

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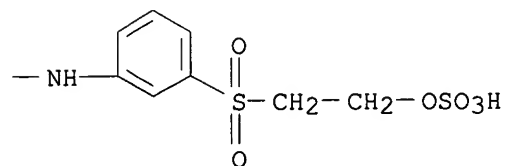
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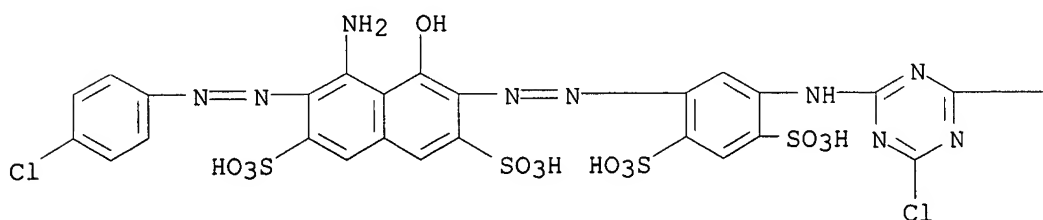
● 5 Na

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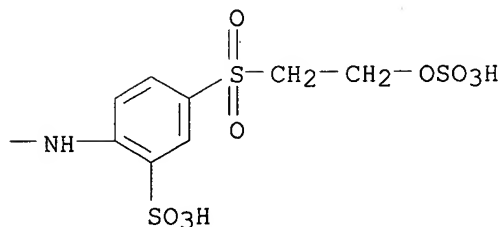
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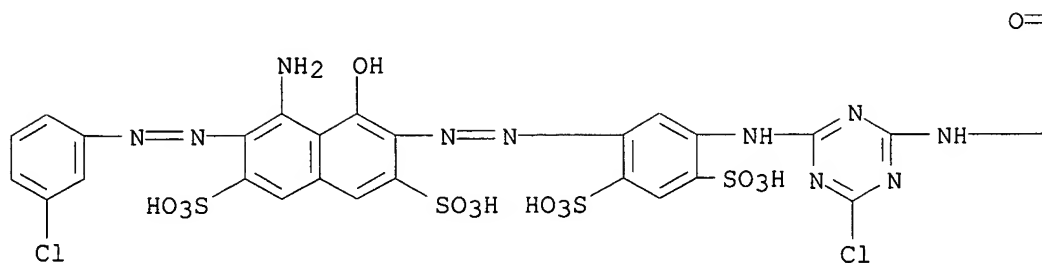
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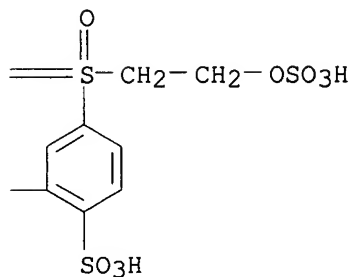
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● 6 Na

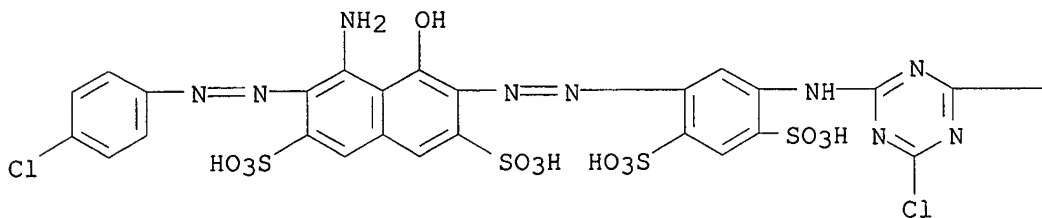
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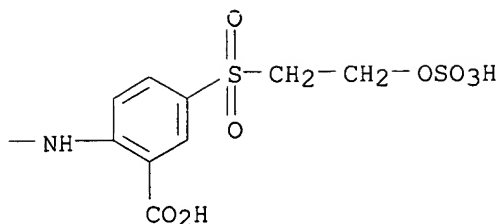
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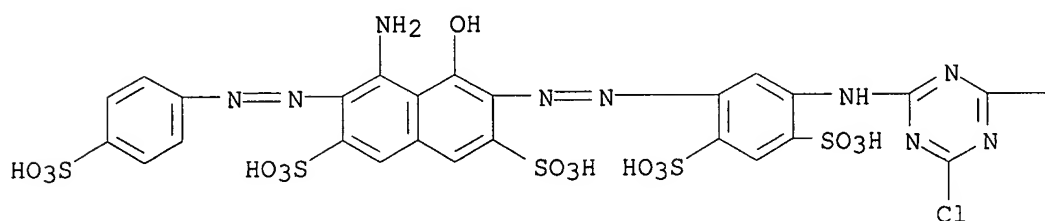
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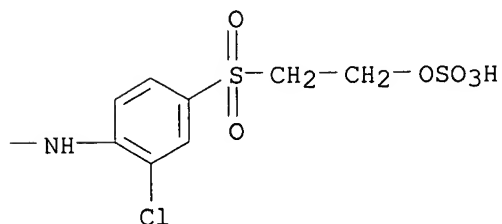
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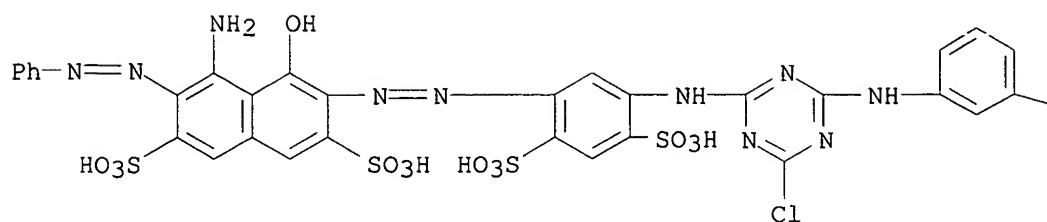
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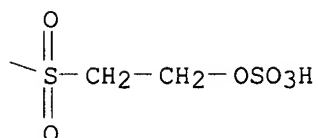
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●5 Na

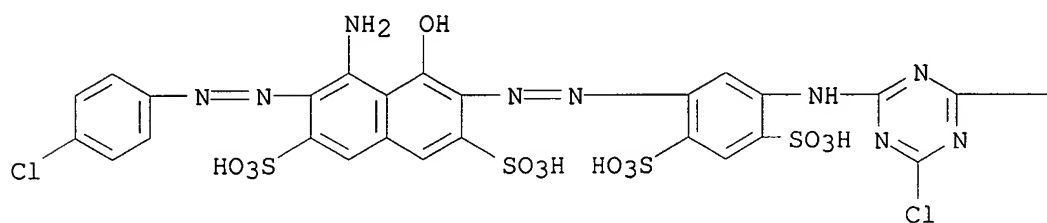
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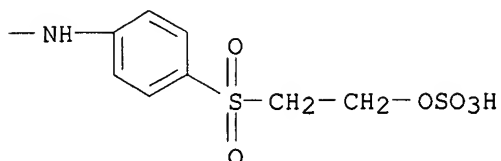
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●5 Na

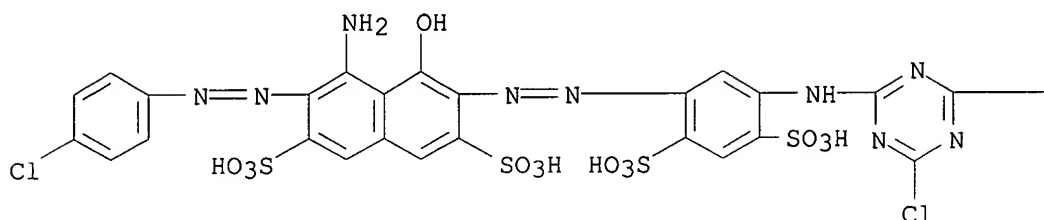
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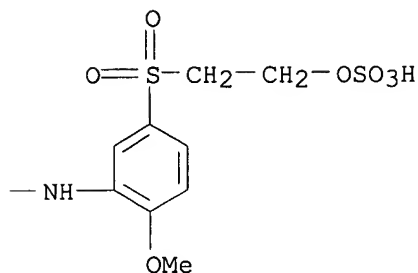
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● 5 Na

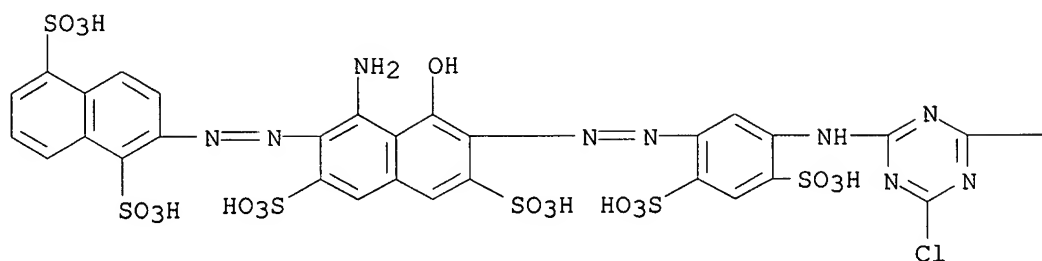
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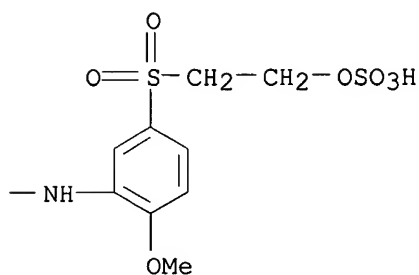
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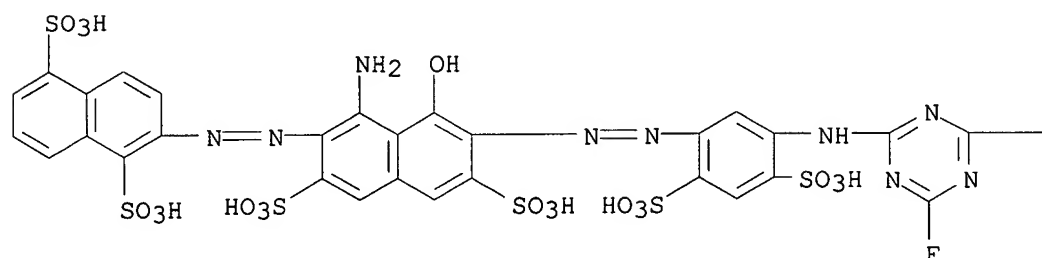
● 7 Na

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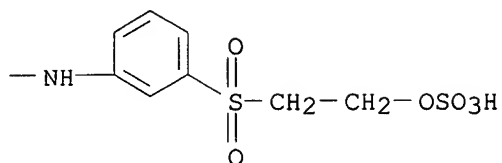
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● 7 Na

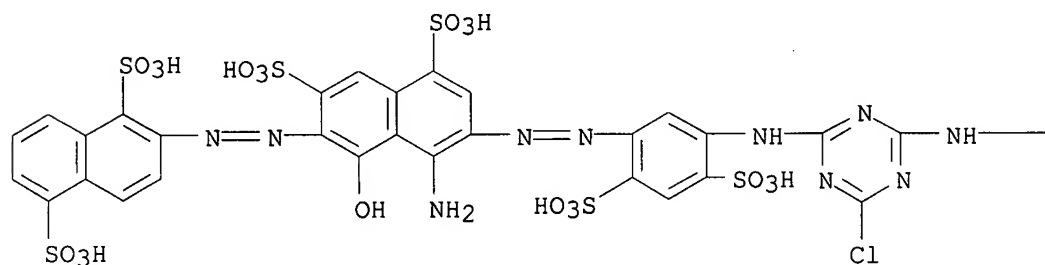
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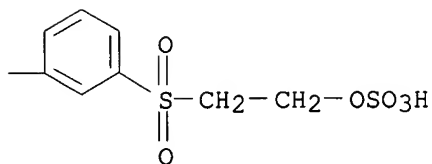
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● 7 Na

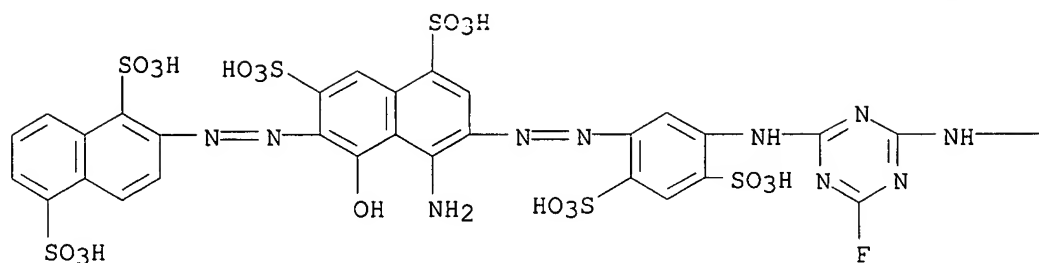
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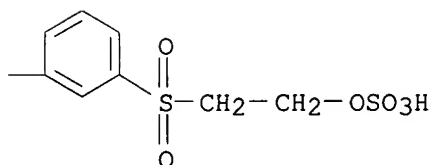
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● 7 Na

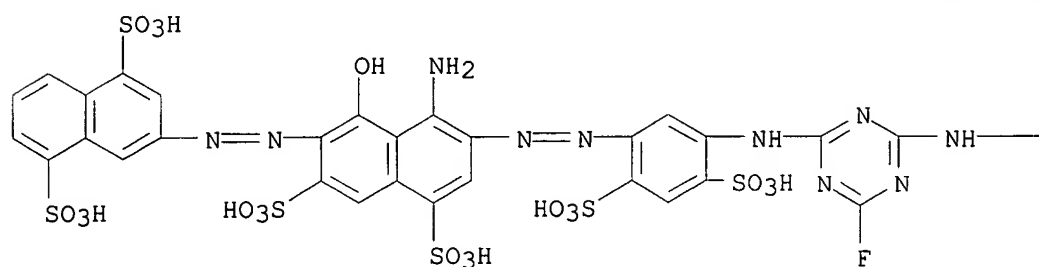
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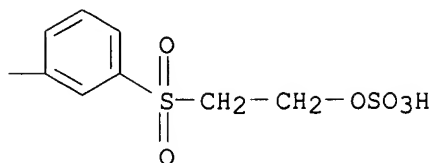
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● 7 Na

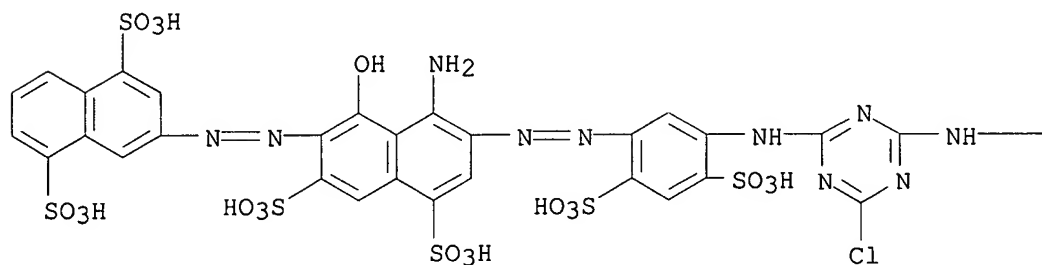
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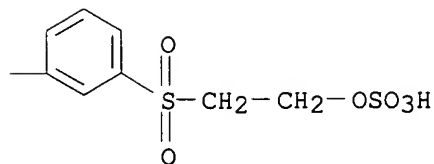
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● 7 Na

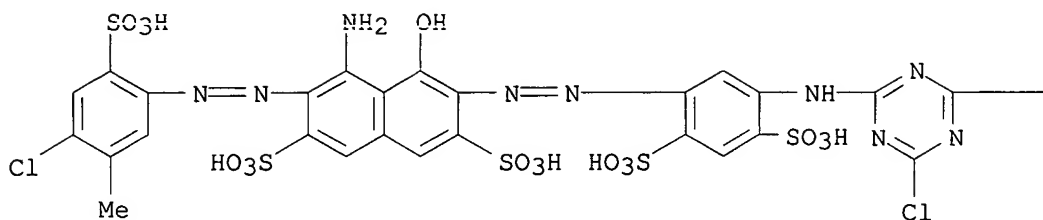
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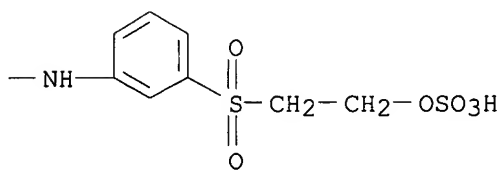
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● 6 Na

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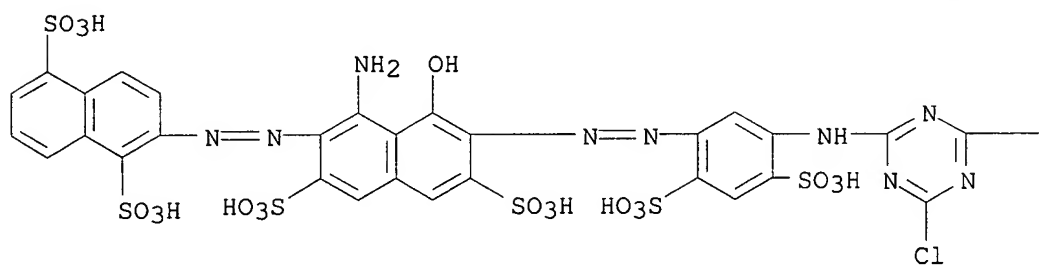
IT 85171-66-0

RL: TEM (Technical or engineered material use); USES (Uses)
(dye, for cellulosic fibers, manuf. of)

RN 85171-66-0 HCA

CN 1,5-Naphthalenedisulfonic acid, 2-[[[1-amino-7-[[5-[[4-chloro-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2,4-disulfophenyl]azo]-8-hydroxy-3,6-disulfo-2-naphthalenyl]azo]-, heptasodium salt (9CI) (CA INDEX NAME)

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● 7 Na

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